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University youth and online safety in Egypt: use and trust

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UNIVERSITY YOUTH AND ONLINE SAFETY IN EGYPT: USE AND TRUST

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Abstract

The Internet contributes significantly to the positive development of humanity. That being said, Internet accessibility presents a possibility for exposure to harmful content or interaction, specifically to young minds.

This study aims at investigating how youth use the Internet in the context of Online Safety. It examines uses and gratifications of the Internet and trust levels of Internet Safety. Moreover, it attempts to explore the risks that could be faced online.

A survey was conducted on a convenience sample of 402 University Youth students. The results of the study revealed that respondents use the Internet mainly to satisfy their interpersonal utility needs. It also suggests that they have high trust levels of the safety of certain online practices.

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Introduction

According to La Rue (2011), "Unlike any other medium, the Internet enables individuals to seek, receive and impart information and ideas of all kinds instantaneously and inexpensively across national borders. By vastly expanding the capacity of individuals to enjoy their right to freedom of opinion and expression, which is an "enabler" of other human rights, the Internet boosts economic, social and political development, and contributes to the progress of humankind as a whole."

As the number of Internet users continues to grow worldwide it's important to raise awareness on and highlight Online risks and threats, in order to increase knowledge on issues that would enable Internet users to make the best out of this medium, while being safe and secure.

The International Telecommunication Union (ITU) today indicate that by end of 2014, there will be almost 3 billion Internet users, two-thirds of them coming from the developing world, and that the number of mobile-broadband subscriptions will reach 2.3 billion globally. 55 percent of these subscriptions are expected to be in the developing world. By the end 2014, 44 percent of the world's households will have Internet access. In Africa, almost 20 percent of the population will be online by end of 2014, up from 10 percent in 2010.

"I think a major challenge for the media is how to deal with the Internet, which provides a lot of opportunities and also a lot of dangers," Eric McDonald Wishart, Agence France-Presse's Asia-Pacific director, told Xinhua News while attending World Media Summit in China (2009). A major concern for Communication and Mass Media

practitioners and researchers has been to investigate the effects of mass communication and how the audiences are using it. The birth of the Internet has contributed to the shift of perception around "audience" from passive receivers towards "active audience" who produce messages; and process and act differently upon receiving a message.

The use of the Internet is rapidly increasing and becoming an integral part of many Egyptians' lives, providing importance for researching the topic of Online Safety in Egypt. According to the Egyptian Ministry of Communications and Information Technology (2014), in its publication titled "ICT Indicators In Brief", Annual increase rate of Internet use is 33.8 percent. The number of Internet users of Egypt is 44.5 million users as of May 2014. No recent sufficient data were identified that have detailed the demographics of Egyptian Internet users. That being said, it's important to note that an estimated 75 percent of Egyptian population is under the age of 25 with just 3 percent over the age of 65, making it one of the most youthful populations in the world (Central Agency for Public Mobilization and Statistics, 2014).

According to Swinhoe (2012), "While there were relatively few target cyber-attacks originating out of North Africa last year, Egypt isn't crime free. Despite Damballa Labs claiming, 'Egypt isn't a global player in cyber-crime,' history seems to disagree."

The focus of this study would be to tell the story of the Online Safety (Internet Safety) of University adolescent and pre-adulthood students (Youth), from their own perspective. Their own report on how and why they use the Internet and Social Media. "Because youth are choosing their media and peers, they are in control of their socialization process rather than being controlled by socialization pressures that typically

stem from families and schools" (Subrahmanyam et al., 2004).

The trust levels of the safety of the Internet and certain online practices, related to voluntarily sharing personal information publicly through a personal website, blog or a social media profile, by University youth will be discussed in this thesis. Moreover, the study aims to gain insight into youth's possible exposure to risks of Internet use such as harassment, privacy violation or cyber-bullying; and if exposed, which risks particularly have they encountered. Such insight could help shed light on how youth use the Internet and help identify what are the issues that could constitute a crisis to youth development and trust levels.

Also an attempt will be made to discover whether or not gender is a significant factor in determining what students consider safe or unsafe on the Internet; is it a factor in their trust levels of some Internet actions related to making personal identifiable information viewable to the public on their personal website, blog or social media profile?

Student's self-report on Internet Safety practices is a key focus for this thesis. Therefore, the theoretical framework for Uses and Gratifications Theory would be suitable for this study to be applied. The paper will survey trust levels of youth on the safety of certain online practices. Devolvement stages and trust concepts will be covered in this thesis under the review of Erick Erickson's psychosocial theory of development.

Statement of the problem

The problem this research is concerned with is that as the Internet offers a space for positive development of life and human beings, having presence on or participating in the online world comes with risks. Being online provides access to youth and children to vast knowledge. It is this accessibility that could expose young minds to harmful information that encourages hate speech or teaches and glorifies violence, for example. It also exposes youth to risks such as privacy threats, harassment or sexual solicitation among other safety and security concerns that could cause damage to the well being and development of children, youth and adults.

In Egypt, it's important to raise awareness about Online Safety and on University or College students self reported practices related to the subject matter. It's key to focus the research and the analyses on the Internet user's voice by investigating their report on their online activities, how they use the Internet, their perception on different safety issues and their possible exposure to online risks.

Literature Review

Background: Topics related to Online Safety in Egypt

This section of the literature review is focused on the initiation of the Internet and on Cybercrimes reported in Egypt. Also, a review of the regulations and activities around Online Safety by Egypt has been made.

"The Internet has revolutionized the computer and communications world like nothing before. The invention of the telegraph, telephone, radio, and computer set the stage for this unprecedented integration of capabilities. The Internet is at once a world-wide broadcasting capability, a mechanism for information dissemination, and a medium for collaboration and interaction between individuals and their computers without regard for geographic location. The Internet represents one of the most successful examples of the benefits of sustained investment and commitment to research and development of information infrastructure" (Leiner et al., 2003)

The Internet started in 1969 as an experimental project designed to link the "US military, defense contractors, and University laboratories conducting defense-related studies." Over time, other networks developed to link businesses, universities, research facilities, and individuals around the world. As more computers were added and linked to existing networks, the magnitude of the Internet grew to its current dynamic state.

As Leiner et al. (2003) explained, the Web is simply a way of accessing information shared via the Internet new websites and networks that are added to the Internet daily. Social media and Internet access through laptops and mobile phones has participated in the rapid and sophisticated growth of the Internet.

Most websites contain informative and positive content and provide a gateway to information that most would never be able to retrieve without Internet access. However, because literally anyone with a computer and an Internet Service Provider (ISP) can post content to the web, not all content on the Internet has proven to be enriching.

Use of the Internet began in Egypt around 1992, after the infrastructure was extended between the Egyptian Universities and the French Company "Bit Net" (Starting 1989) along with the use of Internet connections and it was limited to only two destinations, which were the Egyptian Universities and the Information Center. In 1994, the Internet started being utilized by Egyptian Ministries, government bodies, and Governorate offices. The Universities network continued to supply the universities and Institutes with the service. (Egypt State Information Service, 2013)

In 1997, the Egyptian government authorized Internet Service Providers (ISPs) to provide the service to the public and citizens through Telecom Egypt Company, ISPs were allowed to own and manage their network infrastructure. Currently there are up to 68 companies responsible for providing the net for Egyptian citizens.

In 2002, the government began to adopt Free Internet project; Ministry of Communications and Information Technology (MCIT) partnered with companies to provide service to offer Internet connection service at a normal call rate. In 2004, the government launched an initiative, Asymmetric digital subscriber line (ADSL), high-speed Internet and entered the ISPs in this initiative.

With Egyptian society becoming increasingly electronic, more people are going online to create a parallel information and communication system to bypass the

"traditional" sources of information. Internet use in Egypt has increased rapidly, with Internet penetration growing from 12.6 percent in 2006 to 52.3 percent in May 2014.

It's important to highlight that Egypt is not cyber crime or electronic crime free. That being said, studies that have reported and detailed the Online Safety or Security risks or threats towards the Egyptian population could not be identified. In reference to the Middle East, and according to State of Online Safety Report (2011), "Research on Internet safety and technology usage in this region is limited." Cyber crimes have been reported in Egypt: In 2010, Egypt was named by Kaspersky Labs as "one of the top sources of password-stealing Trojans in 2010 and the year before, Egyptian hackers were involved in one of the world's largest cyber-crime criminal court cases.

More recently and as explained by Swinhoe (2012), Websense named Egypt third for countries hosting phishing fraud in 2012. While it totaled 6.8 percent of worldwide phishing, the report noted it had experienced a large rise in the year before that. According to Kay (2004), Phishing "is a technique used to gain personal information for purposes of identity theft, using fraudulent e-mail messages that appear to come from legitimate businesses. These authentic-looking messages are designed to fool recipients into divulging personal data such as account numbers and passwords, credit card numbers and Social Security numbers"

Microsoft's Malware Protection Center stated that Egypt in 2012 had "one of the highest malware detection figures on the whole continent, which may be due to a high number of people using older versions of internet browsers, which are always more vulnerable to attacks than up-to-date software." (Swinhoe, 2012)

According to Gooch & Williams (2007), Malware is "A generic term (short for 'malicious software') covering a range of software programs and types of programs designed to attack, degrade, or prevent the intended use of a computer or network. Types of malware include viruses, worms, Trojan horses, and denial of service attacks. The term can also be used to refer to software that passively tracks the use of a computer system for the purposes of fraud or the theft of identity. "

It's hard to mention online security and safety in Egypt without going into politics. Arab Youth have used Technologies and the Internet, as well as Social Media services, to organize mass protests which led to multiple uprisings across the Middle East in what's known as "The Arab spring". In Egypt, this has paved the way to the 25th of January 2011 revolution that created significant political and social changes in Egypt and in the entire Arab World.

The recent revolutions and elections have had a big impact on almost every aspect of life in Egypt. Communication and technologies played a huge part in facilitating such impact. Government control over online access made it easy to block Internet traffic in less than an hour on January 27, 2011. In retaliation, the hacktivist group Anonymous launched 'Operation Egypt', bringing down four government sites with Distributed Denial of Service (DDoS) attacks, while spammers used unrest to target people looking for news on the subject. (Ryan, 2011)

The previous provides an idea of the safety and security risks that face Internet users in Egypt, which raises the need for understanding such risks and to have the proper technological, legal and educational solutions to protect users and particularly youth and

children in Egypt from cybercrimes. This thesis is focused on Online Safety risks that could be faced by Egyptian youth.

In light of the discussion of Internet Safety related topics in Egypt, it is important to shed light on the regulations related to Internet Safety as well as initiatives and efforts undertaken by Egyptian governments. Providing awareness campaigns and strong legislations that protects victims and penalizes criminals is key in the process of providing safety and security to young minds while being online.

In the Middle East "Some countries in the region are more progressive about internet safety and online responsibility, providing some awareness campaigns and websites for accessing information." Qatar launched the 'On the Internet your privacy is your responsibility' media campaign, which appeared in cinemas, on television and on the radio. Jordan has implemented sentencing and fines for technology-related crimes such as hacking and the spreading of viruses. (State of Online Safety Report, 2011)

According to the Egyptian Ministry of Communication and Information Technology in its Internet Safety webpage (2014), "Recognizing the importance of ensuring people's safety on the Internet, MCIT has taken concrete steps to create an interactive platform to share relevant information, best practices, concerns and resources."

Such efforts include Targeted Legislative Protection. "The most important legal text to be mentioned in this category is Article 116-bis (a) of the Child Law no. 12 of 1996, amended by Law no 126 of 2008. This article is considered a pivotal point in the legal approach for protecting the Egyptian children from all sorts of harms and abuses online."

Article 116-bis (a) “Shall be imprisoned for a period of not less than two (2) years and a fine of not less than ten thousand (10,000) Egyptian pounds, and not exceeding fifty thousand (50,000) Egyptian pounds any one importing, or exporting, or producing, or preparing, or viewing, or printing, or promoting, or possessing, or broadcasting pornographic material using children, or related to the sexual exploitation of children. Tools and other instrumentalities used to commit these crimes and proceeds derived from such offences shall be seized, and the premises used to commit such offences shall be closed for a period not less than six (6) months. All the above shall be undertaken without violating the rights of those with good intentions.” (Ministry of Communications and Information Technology, 2014)

Law establishing The Economic Courts no. 120 of 2008: These courts have a jurisdiction over criminal cases related to economic activities. They cover those cases related to Information and communications technologies, including online crimes. In order to improve the use of such legal tools, steps were taken concerning databases and Capacity building.

The Technology Solutions that have been adopted by Egypt in this regard include:

- Self-regulatory measures: A letter of commitment by Egyptian Internet Service Providers ISPs was signed on July 2010 “aiming at blocking Child Sexual abuse Imagery and encouraging ISPs to cooperate with law enforcement agencies in that regard.” Also, Encourage ISPs to provide educational material for child online protection and to conduct awareness raising efforts. This Letter of Commitment was signed by the major ISPs in Egypt (TEData – Vodafone – Mobinil – Etisalat and Noor).

- Tools: In January 2011, a step was taken in Egypt to activate the letter of commitment, when TE Data and Link.net introduced the Net Clean System, a technological tool using an advanced and technology blocking child pornographic websites, and is working in compliance with the Internet Watch Foundation IWF lists of pornographic websites.

Law Enforcement activities to tackle Online Safety include:

- A department to confront Cybercrimes (crimes against children included) was established "The Cybercrime and Data Networks Unit" by (Decree 13507 for year 2002). It was established within the General Department for Information and Documentation in the Ministry of Interior.
- Officers receive training courses on Cybercrime combating mechanisms. The "Risks associated with the unsafe use of Internet" curriculum was added as a core topic for officers at all security institutes.
- In 2010, Ministries of Communications and Information Technology and the Ministry of Interior, in cooperation with International Centre for Missing and Exploited Children (ICMEC) "took steps towards the application of the (CETS-Child Exploitation Tracking System), new technology developed by Microsoft that helps police institutions to develop methods to cope with the constantly changing nature of online child exploitation crimes. The full adoption of the system is yet to be seen."

As for the awareness and education about the topic by Egypt, the Ministry of Communications and Information Technology in collaboration with civil society organizations, the private sector and other governmental institutions, worked to raise

awareness of the importance of Internet Safety and digital citizenship within the framework of the National e-Safety Working Group. “Two working groups were established to work in 7 governorates geographically strategically selected in order to cover different social classes, representing rural and urban areas, at different educational level. The two groups are: the Youth Internet Safety Working Group and the Parents Internet Safety Working Group”. (Ministry of Information and Communications Technology, 2014)

Based on the above, one could say that the topic of Online Safety is one that witnessed a number of initiatives and activities to protect Internet users online particularly children, by the Egyptian government. One could argue that there’s a lack of comprehensive Legal Framework that’s concerned with regulating Internet use and cybercrime. Also, no clear definition has been identified that details what could be considered as a cyber crime in the Egyptian Law. There are efforts that need to be included as well such as efforts that aim to protect different age segments on the Internet.

The nature and risks of the Online World

As highlighted in the introduction, the birth of the Internet has changed the perception around media and communication and around the effects of having an online presence. The nature of the Internet as a relatively new and special nature medium, in comparison to the traditional media such as the Radio or TV, must be highlighted along with students self report on Internet activities to better research the subject matter.

Interactivity is one of the most discussed features of the "new media" particularly the Internet. Understanding different approaches to interactivity in communication is important. Users might be interacting with a computer using a search engine. But they can interact with another human being through a social media network or exchanging emails. According to the study "Interactivity reexamined" by Ha and James (1998), interactivity on the World Wide Web have five important dimensions: "(1) playfulness-games and quizzes that the user participates in; (2) choice – providing the user with alternatives, including the alternative of termination communication at any time; (3) connectedness – providing a rich site that involves the user; (4) Information collection – the gathering of users demographics, psychographics and sometimes personality characteristics by the website; (5) reciprocal communication – two-way communication."

"Very few if any developments in information technologies have had such a revolutionary effect as the creation of the Internet. Unlike any other medium of communication, such as radio, television and printed publications based on one-way transmission of information, the Internet represents a significant leap forward as an interactive medium. Indeed, with the advent of Web 2.0 services, or intermediary platforms that facilitate participatory information sharing and collaboration in the

creation of content, individuals are no longer passive recipients, but also active publishers of information." (La Ru, 2011)

Youth use Internet to create their online cultures. They develop norms and construct important features such as identity and characteristics as meaning of engaging in communication. Internet users are not only receivers of communication or other Internet net users' creation, but are active participants in creating their own subculture and explore the different sources of communication and Information.

Greenfield and Yan (2006), argue that understanding youth and adolescents on the Internet " needs to expand beyond its effects, uses, and gratifications to consider how adolescents developmentally construct their online environment." Greenfield and Yan (2006) propose required directions in understanding adolescents' developmental constructions.

First, the Internet requires recognition as a new social environment that adolescents contribute to in order to "address universal adolescent developmental issues such as identity, sexuality, and a sense of self-worth. In this way, adolescents are co-constructing their own environments."

Second, the Internet requires recognition as a cultural tool kit. It is a culture in which norms are developed, shared, and transferred to other users. This culture constantly changes with the creation of new norms by new users as technology advances and access increases. It is also a tool kit because it offers an infinite series of applications, each with its own use and ability to use for good or bad purposes.

Third, the Internet requires recognition as a new object of cognition that is neither

concrete nor visible but rather "an enormous virtual complex network of networks with great technological and social complexity". The Internet becomes a "hybrid of artifactual (e.g., computer screens and keyboards), social (e.g., communications with people), and mental-like systems (e.g., invisible virtuality)" with layers of complexity in each system that challenges both adolescents understanding of it and researchers understanding of adolescents online" (Greenfield & Yan, 2006).

"Safety can be thought of as encompassing feelings of security and containing elements of risk-taking behavior …….. Specifically, safety implies the absence of harm while security implies the absence from anxiety of harm." (Peske, 2006). Therefore, researching youth's Online Safety must be put in appropriate context that considers the particular nature of the Internet and the safety risks it comes with.

Common concerns regarding safety on the Internet include: malicious users (spam, phishing, cyber bullying, cyber stalking etc.) and various types of obscene or offensive content such as Child Exploitation Images. Internet risks such as ones related to hardware and software (malware, computer viruses, hacking etc.) are often discussed under the topic of Internet Security. Numerous crimes can be committed on the Internet such as stalking, identity theft and more.

The Internet has a multitude of uses. "The Internet maintains certain features that assist adolescents in achieving their developmental tasks of building relationships and developing identity. These features include anonymity, interactivity, accessibility, and connectivity." (Peske, 2006)

The Internet is a powerful learning tool but it also offers a possibility of exposure to harmful content or interaction. For example "Using the Internet frequently,

participating in chat rooms, talking to strangers disclosing personal information, engaging in threatening or sexually suggestive communication, and engaging in offline meetings have all been identified as risk factors for harm and/or solicitation." (Berson & Berson, 2005)

Being exposed to an Internet risk could trouble the development process of youth. According to Peske (2006), when solicited online, feelings of embarrassment, fear and/or guilt may prevent adolescents from coming forward and telling someone about the incident, which can cause a lot of distress.

"Internet safety cannot be effectively taught without also teaching media literacy. The two go hand in hand, and both are necessary". It's important to raise awareness on how to act in ethical and effective ways that enhance human beings ability to communicate. Even if blocking, filtering, and restricting access takes place in certain contexts, the vast majority of youth are using computers, smart phones, game consoles, and other devices to connect with others outside of "controlled" contexts, and they will need to use digital tools in the workplace and communities when they graduate. (Gallagher, 2012).

A review of some types of risks or threats, under the umbrella of Online Safety, youth might face while using the Internet that could pose a threat to adolescent's development is included in the next part of this chapter. Such risks involve Invasion of privacy, Sexual solicitation, and harassment/cyber-bullying. The previous risks are possible outcomes of voluntarily sharing personal information publicly online, which is a focus Internet practice of this thesis. As the Internet has become pervasive in the lives of

young people, their online activities and interactions have become the focus of intense research.

As for Internet privacy and privacy violations, technological advances over time have been the most significant factor in the changing process of privacy concerns. According to Demir (2002), "The conventional threats against privacy have been changing and gaining new dimensions, especially with the emergence and increasing use of the Internet in daily life. A comprehensive search of different sources in the literature found four major types of new threats and, consequently, new concerns with regard to privacy. These are governmental or institutional privacy violations, privacy violations by Web marketers, individual privacy violations by hackers and, finally, employer invasion of privacy in the work place."

One privacy issue involves youth submitting personal information online to websites. In 2002, the American Federal Trade Commission (FTC) investigated the extent which commercial website requested and collected information from children under 15 years of age. The FTC (2002) found that 90% of websites collected some form of personal identifying information from children with 50% of these website collecting two or more types of information. Types of information varied from telephone numbers, age, gender, photos, hobbies, and other interests such as movies, books and games.

Providing personal information to websites becomes a particular concern if these sites make the info available to others. The FTC discovered websites that posted users personal identifying information online, including pictures.

Moreover, the need for a set of unified privacy policies has been met by the European Union with proposed legislation. The Data Protection Regulation is a proposed

set of consistent regulations across the European Union that protects Internet users from concealed tracking and unauthorized personal data usage. This regulation will further protect users' privacy rights in two key ways: clearly defining the term “personal data” and increasing punishments for those who violate users' online privacy (EU Commission, 2014). Having more legislation and legal framework that is concerned with the violations of privacy of youth and children online is needed in Egypt.

Another privacy issue which is a concern for this paper involves youth and Internet users in general voluntarily making their personal information online available and easily accessed, through posting such information on a personal website, blog or a social media profile. “Internet users exchange news, ideas, advices, experiences, as well as share political discourse through the social network sites (SNSs). It offers its users the power to share information about their lives, lifestyle and to further express their feelings and thoughts about current and past issues. Nevertheless, the more users reveal information about themselves to socialize and enjoy SNSs services; the more they risk their privacy” (Alfred, 2014)

There are different variables that could affect online practices and have been the focus of research. As for whether or not gender is factor impacting revealing personal information online, Huffaker (2004) found similar identifying information between genders on youth blogs. Any difference in personal supplied information online found that males offer slight more information and contact information such as email while females link slightly more often their homepages (Huffaker, 2004). “Ybarra et al. (2005) found similar types of personal information disclosers between genders using online communication features; males often provided personally identifiable information

whereas females more often posted photos of themselves."

In relation to Bullying and according to Peter & Valkenburg (2008), harassment is defined as "threats or other offensive behavior sent online to the youth or posted online about the youth for others to see". One of the more common forms of harassment among youth is that of cyber bullying. It could be defined as the use of information technology to harm or harass other people in a deliberate, repeated, and hostile manner. (Mazari, 2013)

It is often perceived as the online version of offline bullying, or "traditional bullying", which is characterized as the "aggressive intentional act or behavior that is carried out by a group or an individual repeatedly and over time against a victim who cannot easily defend him or herself" (Mazari, 2013). Every age group is vulnerable to cyber bullying, but teenagers and young adults are common victims.

While the behavior of cyber bullying is identified by the same definition when practiced by adults, the distinction in age groups sometimes refers to the abuse as "cyber stalking or cyber harassment" when perpetrated by adults toward adults. Common tactics used by cyber stalkers are performed in public forums, social media or online information sites. Such actions are intended to threaten a victim's reputation, earnings or safety in other ways (Patchin & Hinduja, 2006). Behaviors of cyber bullying in general may include encouraging others to harass the victim and trying to affect a victim's online participation. Many cyber stalkers try to damage the reputation of their victim and turn other people against them. "Cyberstalking may include false accusations, monitoring, making threats, identity theft, damage to data or equipment, the solicitation of minors for sex, or gathering information in order to harass" (Patchin & Hinduja, 2006).

As for sexual solicitation or Victimization and according to Wolak et al. (2006), Sexual solicitation is defined as "requests to engage in sexual activities or sexual talk or to give personal sexual information that were unwanted or, whether wanted or not, made by an adult (18 years old or older)."

In a study comparing different online-interaction styles of youth, Wolak et al. (2006), found that youth who engaged in potentially risky online behaviors and who freely interacted with strangers online experienced significantly higher numbers of aggressive solicitations. "There is also evidence that online solicitation is heightened for youth who have experienced high parental conflict, physical abuse, and/or sexual abuse. The potential for dangerous offline consequences makes online victimization an important concern."

The reality is that most Internet youth-adult sex crimes are characterized by an open seduction that may begin with a sexual solicitation. It has also been suggested that factors related to "immaturity, impulsiveness, histories of abuse and interaction styles make certain youth more vulnerable." "The more prevailing concern for online harassment and cyber bullying is the negative effect victimization has on the mental, emotional, and social development of its victims." (Wolak et al., 2006)

Mitchel et al. (2001) explained that adolescents are at an increased risk for solicitation when participation in chat rooms and when interacting with and submitting personal information to strangers online. Over the course of one year, Mitchel et al. (2001), in their study titled "Risk factors for and impact of online sexual solicitation of youth", found 19% of adolescents had experienced at least one sexual solicitation and 3% aggressive solicitation in which the solicitor attempted or made offline contact.

"Frequency of Internet use, participating in chat rooms, engaging in risky behavior, talking to strangers or using the Internet outside home were all factors associated with the risk of sexual solicitation."

Victimization consist of different crimes such as enticing victims through online contact for the purpose of engaging them in sexual acts, using the Internet for the production, manufacturing, and distribution of child pornography and using the Internet to expose youth to child pornography and encourage them to exchange pornography.

Social Media and Online Safety

The introduction of Social Media or Social Networking Sites has added a new dimension to Online Safety. Social media are Internet sites where people interact freely, discussing and sharing information about each other and their lives, producing, sharing and using personal words, pictures, videos and audio.

Social networking sites normally allow users to create an online profile and create a personal network to friends, family members, or other users of the site. Any computer or mobile phone with Internet access can be used to join a social networking site. Some sites require only that the registrant provide an email address and often there is no system in place to verify the validity of any of the information that a potential user provides during the registration process.

Most sites have terms of use meant to curb improper conduct and often have privacy settings that one can alter in order to control who can view the profile and what information others are allowed to see. Most social networking and chat sites have a page about safety. (Campbell-Wright, 2013)

For Facebook, and according to its terms of use section, "We do our best to keep Facebook safe, but we cannot guarantee it. We need your help to keep Facebook safe, which includes the following commitments by you: You will not bully, intimidate, or harass any user ... You will not post content that: is hate speech, threatening, or pornographic; incites violence; or contains nudity or graphic or gratuitous violence."

As for Twitter and its philosophy around Online safety, the message on their website contains " What we do: We work to keep our users safe by using both automated

and manual systems to evaluate reports of potential violations of the Twitter Rules or Terms of Service. What you can do: Control your experience on Twitter by getting to know your privacy and safety settings, being aware of what information you're sharing, and understanding what you should do if you run into an issue. While unfollowing or blocking someone is often enough to resolve an issue, we encourage people to file reports if they encounter someone violating the Twitter Rules or Terms of Service so that we can investigate the situation and take action if necessary."

One of the known mechanisms for Internet users and of social media to combat abuse in the Internet Safety context is the reporting mechanism. Most social networking sites offer users the chance to report improper or abusive content through a "report it" button". In some instances, social networks sites will guide users to contact safety organizations or law enforcement agencies. It's important that Internet users particularly children and youth, know how to report and self police their social networking. They should bear in mind, that reporting things takes time and that many social networks will only remove posts or pages of they violate their terms of use.

According to Campbell-Wright (2013), In the UK, "the media is full of stories about the dangers of the online world and, in particular, social networking sites, an area where the rules of friendships and relationships are being redefined. Of course, there are many positives, and studies are increasingly showing that giving learners of all ages online access is not only sensible, but also beneficial, provided that safeguards are put in place and responsible practice is observed. However, with an increased focus on safeguarding measures, the rise of digital literacy and the greater expectations of learners and, where

appropriate, their parents or guardians, many education providers are left wondering which way to turn."

In a study titled "Exploring Young People's use of Social Networking Sites and Digital Media in the Internet safety context: A comparison of the UK and Bahrain" Julia Davidsona & Elena Martellozzo explored young people's use of digital media focusing upon the use of social networking sites as means of networking and communication in the context of Internet Safety. It draws upon research conducted by the authors in the UK in 2009 and in the Kingdom of Bahrain in 2010. Findings suggest that young people use digital media in much the same way regardless of the social and cultural contexts, but that culturally gendered perspectives place restrictions upon usage.

The study also has highlighted what's considered "High Risk behaviors" by youth online such as "sharing a range of personal information with strangers; and interacting with strangers (e.g. by adding them as online friends and meeting them)."

It's hard to mentioned Social networks and Online Safety and not refer to the tragic case of Amanda Todd. Amanda committed suicide at the age of 15 at her home in Canada. Before to her death, she posted a video on YouTube in which she used a series of flash cards to tell her experience of being blackmailed. She also explained how she was bullied and physically assaulted. As of April 2014, the video had more than 17 million views. Amanda writes, throughout the video, that when she used video chat to meet new people over the Internet a stranger convinced her to bare her breasts on camera, after one year of attempts at having her do so. The individual later blackmailed her with threats of offering the topless photo to her friends unless she gave him a "show". (CBC News, 2012)

As for Social media in the Arab world and Egypt and according to Arab Social Media Report (2014), "The historic and on-going developmental challenges in the Arab region call for novel and collaborative responses by government institutions, private sector entities and civil society structures. On a global scale, technological innovations have been key enablers for more inclusive developmental responses, better governance models and, more recently, with the growth of social media usage in the Arab region, for inclusive public service delivery and policy formulation. The ever-increasing usage rates and the creative adoption of social media in the Arab region during recent pressing social, economic and political transformations have opened new horizons for multifaceted innovations by individuals and government entities. These realities have also unleashed new societal trends by different forces in Arab societies."

The following statistics will focus on Facebook and twitter usage and demographics, as considered the most widely used and perhaps influential social networking sites in Egypt. As mentioned before, technology and particularity Social Media played a significant part in the uprisings that took place starting 2011 in Tunisia, Egypt and across the Middle East and the world. The following data is obtained from Arab Media Social Report (2014).

The number of Arab social users in the world is around 82 million at 22 percent penetration. The total number of Facebook users in the Arab world as of beginning of May 2014 is 81 million up from 54 million in May 2013. By May 2014 the country average for Facebook penetration in the Arab region was over 21.5 percent up from 15 percent in May 2013. The percentage of female users has dipped slightly (from 33.4 per cent in May 2013, to 31.7 percent in May 2014), after having fluctuated slightly between

33.4 percent and 34 percent in the past two years. This is still significantly lower than the global average of roughly 50 per cent.

The percentage of youth (those under 30) has decreased slightly due to slow and steady uptake amongst users aged 30 and above. As of May 2014 the percentage of users between 15 and 29 years old was 67 percent. Egypt continues to constitute about a quarter of all Facebook users in the region (24 percent) and has gained the highest number of new Facebook users since January 2014, with an increase of over 2.6 million users in that time period.

Regarding Twitter, the total number of active Twitter users in the Arab world reached 5 million users as of March 2014. The country with the highest number of active Twitter users in the Arab region is Saudi Arabia with 2.4 million users, accounting for over 40 per cent of all active Twitter users in the Arab region. The estimated number of tweets produced by Twitter users in the Arab world in March 2014 was 533 million tweets, an average of 17 million tweets per day. Saudi Arabia, alone, produced 40 percent of all tweets in the Arab world, while Egypt produced 17 percent and Kuwait produced 10 percent. The percentage of female Twitter users in the Arab region is 36.6 percent, slightly higher than that of female Facebook users in the region.

Theoretical Framework

While researching Internet risks that could be considered as "malicious messages" in which audiences or Internet users receive and interact upon, understanding what the audience does with the media and why becomes crucial. The Uses and Gratifications theory (U&G) is one of the key theories related to what the audience does with the media, shifting the attention "from the purposes of the communicator to the purposes of the receiver," (Severin, & Tankard, 2001), and it aims to understand "what people do with the media" (Kats 1959 in Severin, & Tankard, 2001) focusing on the expectations of the receivers towards the media, and the reason why receivers use or don't use specific media. The previous provides grounds for the applicability of the theoretical framework of this theory in this thesis, while researching youth self report of Internet practices and behaviors.

The Payne Fund studies are at the origin of the U&G theory in the early 1920s; at this time, people were considered passive receivers, namely as immediately and directly influenced by any media content with powerful effect on them (Ruggiero, 2000).

The U&G theory was developed as an alternative to the powerful effect theories of mass media, but it was not yet a part of the mass media research at that time. In the early 1940s, media scholars started to apply the U&G theory (Katz, Blumler et al., 1973) to examine the reasons that attract or direct listeners to certain kind of music in soap operas and radio. According to Wimmer and Dominick (1994), the U&G theory began in the 1940s, when scholars directed their attention and interest in understanding the reasons why audiences were attracted to certain media behaviors such as reading newspapers and listening to the radio.

The theory was developed in order to examine the gratifications that the audience gets from the media contents and that satisfy their psychological and social needs (Ruggiero, 2000).

The U&G theory is based on five assumptions according to Rubin (1993):

1. Communication behavior, according to which the audience is active receiver.

2. The audience selects media contents to satisfy specific needs.

3. Social communication behavior was affected by psychological and social factors.

4. The attempt of people to satisfy specific needs and desires is related to the relationship between media and interpersonal communication.

5. The U&G bases part of its conceptualization on the psychological process according to which people's purposes of media usage justify their choices of specific media contents

Many researches, conducted in the 1940s, suggested that mass media are sources of gratifications to the audience. Several media scholars identified five different ways in which social situations are related to needs, such as the creation of conflicts and tensions, awareness and attention to problems, the provision of real life situations which fulfill specific needs, the increase of certain values, and the offer of expectations of familiarity of specific media contents (Katz, 1974).

Exploring the theoretical framework of this theory is key to understanding people's behaviors using the media in general. For the purpose of this study, and while investigating students self-report on how they use the Internet in the context of Internet

Safety, light will be shed on how youth use the Internet and what does their presence in the online world looks like.

With the development of new media, U&G theory has evolved new perspectives. Because new technology is becoming more interactive, personal factors have to be put into consideration when selecting the media. And so people have more options from diverse media contents to gratify their needs. The new media asserts that the audience is very active in selecting their ways of receiving information (Bouwman & Van De Wijngaert, 2002). The importance of uses and gratifications theory comes from its focus on what people do with media instead of how media affects people (Katz, Blumler et al., 1973).

Researchers, who explored U&G, believe that audiences are variably active communicators. This is the reason why; understanding audience's behavior seems to be very crucial (Rubin, 1993). Ruggiero (2000) further urged scholars to employ uses and gratifications research for the Internet because of the inherent interactivity of the media. "As a psychological communication perspective, uses-and-gratifications theory assumes people communicate or use media to gratify needs or wants. It focuses on motives for media use, factors that influence motives, and outcomes from media related behavior." (Papacharissi and Rubin, 2000)

The present literature review analyzes the previous works concerning the college students' media use and possible consequences, as background to contextualize the uses and gratifications of youth of the Internet. "As scholars began to apply uses and

gratifications theory to the Internet, they quickly began to consider that some gratifications for online media may be unique from those of traditional mass media.

Ruggiero (2000) identified three differentiating attributes of the Internet compared with traditional media – interactivity, demassification (lack of control), and asynchroneity (staggered in time). Several studies identified social gratifications as unique to measuring motivations for the Internet. (Valentine, 2011)

Papacharissi and Rubin (2000) in their studies around predictors of Internet use, used a combination of interpersonal, media, and new technology gratifications to measure Internet usage. Gratifications established in their study were interpersonal utility, pass time, information seeking, convenience, and entertainment. This framework will serve in this study as the main basis for exploring what are the reasons behind the use of Internet by youth as explained in Table (1).

Table 1 – Factors on Internet use and variables associated with each factor or construct

Factor	**Internet Motive**
Interpersonal Utility	To participate in discussions
	Being online is like a second nature to me
	To help others
	To belong to a group
	Enjoy answering questions
	To express myself freely
	To give my input
	To get more points of view
	To tell others what to do
	I wonder what other people said
Pass Time	Passes time when bored
	When I have nothing better to do
	To occupy my time
Information Seeking	New way to do research
	To follow the news
	To get information for free
	To look for information
	To see what is out there
Convenience	To communicate with friends, family
	Easier to e-mail or send a message than tell people
	Because people don't have to be there to receive the message
Entertainment	It is entertaining
	I just like to use it
	It is enjoyable

"Besides the Internet's unique nature, a person's own social and psychological characteristics affect how he or she uses the Internet. Audience activity is central to U&G research and communication motives are key components to audience activity. Motives are general dispositions that influence people's actions taken to fulfill a need or want." (Papacharissi and Rubin, 2000).

U&G theory was deployed also to research the motivations and needs of the use of Social Media or Social Networking Sites. Researchers found different motives or gratifications as to why people would use such sites. Social networking sites satisfy an array of needs from one website. Ray (2007) studied the use of social networking sites for simultaneously fulfilling "entertainment, information, surveillance, diversion and social utility gratifications." " Respondents in the study demonstrated that one of the major benefits of social networking sites is the ability to meet multiple needs on multiple levels. Results of the study indicated that the sum of these gratifications motivated users to continue to use the sites."

As for the criticisms to Uses and Gratifications Theory and despite the significant developments, some scholars have criticized the U&G theory because it (1) relied mostly on self- reports, (2) was very naive and (3) very uncritical about the possible dysfunction for society and self of specific types of audiences' satisfaction, and finally (4) it was very intrigued with the audiences' inventive diversity that were attentive to the constraints of the media contents (Katz, 1987).

In addition, the more recent criticism of the U&G theory challenges some assumptions including the belief that (a) individuals initiate media selection, (b) speculations of media use, which are produced from individual biases, environmental

elements, and social interactions, and (c) active audience whom they target a directed media behavior (Wimmer & Dominick, 1994).

"Communication is obviously a social act, and we can go only so far in understanding it by approaching it at the individual level …. In approaching communication as a social act, it is useful to draw upon theories that have been developed and research that has been conducted in the field of social psychology" (Severin, & Tankard, 2001)

Since Internet users produce messages and share Information about themselves, one can wonder what are the gratifications for people sharing their personal information on the Cyber Space.

The topic of Online Safety is a growing area of focus for researchers. Studies on the topic have discussed the actor (e.g. Bully, sexual predator) under the realm of Criminology. Researchers also have investigated the nature of the Internet as a special medium and how such nature could contribute to or help prevent people from harm and risks. Studies have tackled different Online Safety risks such as cyber bullying and sexual solicitation.

Most of the research is focused on the "receiver" or the victim in this case, studying users behaviors and activities on the Internet, exposure to Internet Risks and the consequences of such exposure. (Berrier, 2007)

As highlighted in the previous chapter, Greenfield and Yan (2006) argue that understanding youth and adolescents on the Internet must expand beyond its effects, uses, and gratifications to consider how adolescents developmentally construct their online

environment.

An attempt will be made to shed light on the topic of youth Internet Safety and Youth's report on their online activities, from Developmental perspective. Psychosocial development is the science that studies changes that occurs in human beings over the course of their life. "This field examines change across a broad range of topics including motor skills and other psycho-physiological processes; cognitive development involving areas such as problem solving, moral understanding, and conceptual understanding; language acquisition; social, personality, and emotional development; and self-concept and identity formation." (Developmental psychology, 2014)

One could argue that the relationship between an Internet user and Online world takes development stages as well. The Internet is becoming fundamental in adolescents' and youth lives. The Internet is a portal to reach out to the world at large; however, the reverse is also true, the Internet is a portal for the world at large to reach its audience.

This leaves youth exposed to many risks. This exposure warrants the question of how trusting youth are in the online world; and how the experiences faced online affects trust in the world outside the cyberspace. At the rate technology grows, the digital gap between youth and parents continues to widen, challenging the efforts of families to ensure adolescents remain safe while online. "The complexity of the Internet attests to the need for a more comprehensive understanding of the factors associated with adolescents trust and safety online". Moreover and as highlighted before " The Internet offers human beings an alternative and new way of working through their developmental tasks." (Peske, 2006)

In an attempt to understand the trust levels of youth and devolvement stages, a

review of Erick Erickson psychosocial theory of development will be conducted. Erikson's (1968) psychosocial theory of development highlights the importance of identity development in adolescence and pre-adulthood. Erikson's theory suggests that individuals experience crises as they develop through stages (Erikson, 1968).

Crises are viewed as turning points in development - a crucial period of time in which one's vulnerability and potential is heightened. "The successful resolution of each crisis leads to an increased sense of inner unity, good judgment, and capacity to do well based on one's own standards and the standards of significant others" (Erikson, 1968). One could argue that facing an Internet risk such as having one's social media profile hacked or being sexually solicited, to constitute crisis that affect youth development and particularly, their trust levels of human beings and of the Internet as a "virtual world".

The foundation for building trust rests in Erikson's first psychosocial development crisis known as "basic trust versus mistrust" (Erikson, 1968). An infant's goal is to develop a sense of basic trust defined as an "essential trustfulness of others as well as a fundamental sense of one's own trustworthiness". Trust is an inner state verifiable by testing and interpretation and a way of behaving that is observable to others (Erikson, 1968). Forming an identity consists of many aspects of self, including gender, sexual, moral, political, and religious aspects each known as an identity unto itself (Peske, 2006)

Within psychosocial development theory, Erikson (1968, 1989) discusses the requirement of forces or strengths used to assist the successful resolution of trust and identity crises. Developing trust in the first developmental stage of Erikson's theory is based on the strength of hope - hope in which an infant can trust that their needs will be

met (Erikson, 1989). In adolescence and pre-adulthood, trust continues to develop from the strength of fidelity. Fidelity is found in youths search for somebody or something they can be true to (Erikson, 1968) and involves both a deeper capacity to trust oneself and others and to be trustworthy and able to commit one's loyalty (Erikson, 1989). Psychosocial theory puts a great emphasis on the outside social interactions to human development and how this influences the individual's to find their identity. The theory describes the needs that one looks to be fulfilled in which could be looked at as gratifications.

As for the criticism for Erikson's school of thought "Erikson's contributions are irrefutable, but his concepts are often disputed due to his lack of educational criteria. Many claim that his ideas are ambiguous and often inconsistent. Erikson describes fidelity as an ideology, yet places that concept in the adolescent stage, which perplexes many psychologists ….. If fidelity is an ideology as he described, it seems more appropriate to place the concept into the later stage of young adulthood when ideologies become prominent, not during teenage years."(Allen, 2006)

In light of this discussion of trust and identity development it is important to note that "although each stage depends in some capacity on the completion o f previous stages, basic trust and identity formation occurs at every stage of development in some form" (Marcia, 2002)

Methodology

Research Questions

The literature review shows that youth use the Internet and Social media through both different and similar patterns, and that they could be exposed to different online risks. As explained before, it's key to explore what are the online practices of youth in Egypt. Electronic Crimes have been reported in Egypt but not enough research has been directed towards studying Online Safety and potential risks in that realm. Shedding light on how trusting youth are of the Internet and Social Media could constitute a basis for research around Online Safety.

It's important to note that youth voluntarily providing personal information to websites particularly Social Media, and having such information viewable by the public is a key and a common variable, according to the previous review of the literature, in increasing the possibilities of exposure to online harm. The study tries to address the following research questions:

RQ1: What are the self-reported online practices of university youth?

The aim is to tell the story of the Internet Safety of University Youth. Their own report on how they use the Internet, in the context of Online Safety. The question also aims to address whether or not participants in this study use social media, which networks or websites they use and does their presences in the online space represents their authentic identity i.e. use a social media profile with real personal information.

Moreover, understanding the publicly available information that youth voluntarily share online provides an idea of how trusting are they of the Internet.

Moreover, an attempt will be made to discover why youth use the Internet or in other words the motivations behind the use of Internet by youth under the theoretical framework of the uses and gratifications model. Motives for the Internet use were evaluated using scales adapted from previous studies of Papacharissi and Rubin (2000). Motives included interpersonal utility, pass time, information seeking, convenience, and entertainment.

To continue exploring youth use of the Internet under the context of Online Safety, an effort will be made to gain insight on whether or not students have been exposed to any Internet risk e.g. harassment, privacy violation; and if yes, which risks particularly have they encountered.

Operational definitions:

Online risks: for purposes of this thesis, online risks would be defined as the malicious messages that are encountered while using the Internet or Social Media and that can cause physical or psychological harm for its receivers. The focus risks are Privacy threats, Cyber bullying and sexual solicitation.

University Youth: will be defined as people between the ages of 18 and 21, adolescent and pre-adulthood stage, who are currently enrolled in a University or College undergraduate or graduate programs, and who use the Internet.

RQ2: What are the Trust levels of the safety of certain online practices?

This will be measured based on participant's assessment of different safety related practices online as defined below. Also, participants will be directly asked around how safe they think the Internet is for communication, and how reliable are the information being disseminating on it.

Hypothesis: There is a difference in youth reported unsafe online practices based on gender.

An attempt will be made to correlate gender variable (Question 1) with participants answers to Question 9. As discussed in the Literature Review, some studies have shown that there are differences in the amount and types of information sharing based on gender. Reflecting this variable on participants from a sample from Egyptian youth.

Operational definitions:

Online practices: would be operationally defined as Online practices related to Online Safety that increase or decrease the chances of exposure to Online risks revolving around youth providing Publicly Identifiable Information while being online.

The previous research questions could provide insight into the process of identifying how safely youth use the Internet and in exploring what are the issues that could constitute a crisis to youth development and trust levels.

Sampling

The population of this research would be the American University in Cairo youth students between the age of 18 and 21, who use the Internet. The age choice is based on the previous discussion of the development perspective of human being. According to Erik Erikson's stages of human development, an adolescent is a person aging from 13 to 19. Which is the phase of "Fidelity: Identity vs. Role Confusion" while a young adult is a person in the age range of 20 to 40. The legal age in Egypt is 21 years old.

However, and as mentioned earlier that basic trust and identity formation occurs at every stage of development in some form. This research will be focused on late adolescences or "pre adulthood phase". It's important to highlight that according to Levinson (1986), "For a variety of reasons, timeliness on young adulthood cannot be exactly defined—producing different results according to the different mix of overlapping indices (legal, maturational, occupational, sexual, emotional and the like) employed, or on whether 'a developmental perspective...[or] the socialization perspective".

In sampling the population, a non-probability technique was applied. To gather respondents for this study, a convenience sample for this research was chosen and it includes all graduate and undergraduate students of the American University in Cairo (AUC), between the age of 18 and 21, that could be reached through the email account, offered by the University as a free service (username@aucegypt.edu) to all students. The total number of 18 to 21 years old AUC students registered in Fall 2014 is 4639 students. Considering that not all university students will be contacted, every student (sample unit) does not have an equal chance of being represented in this research. All enrolled students

in 2014 will be contacted through the Student Services Online (SSO) office.

Survey

A Quantitative Methodology was applied for this research. In order to describe youth practices online and to investigate related online risks, Survey was selected as the most suitable technique.

Rubin (2002) argues that "methodologically, survey self reports of uses and gratifications can provide accurate information about media use. This is due to the base assumption that the user is an active agent in the use of media, and, therefore, they can articulate their motivations for consuming the content."

The questionnaire was constructed using adaptations of measurements from earlier studies reviewed. An online questionnaire was relevant for this study, as all respondents were required to be Internet users. A questionnaire has been designed using surveymonkey.com, an online website that provides web-based survey solutions. The 16 - question survey aims at describing the use of Internet by youth and how trusting they are in certain online practices; 4 questions are directed specifically to respondents who have faced online risk.

The survey attempted to answer the research questions in which Descriptive and Analytical questions were directed to participants through questionnaire designed using Survey Monkey service, participants were provided with an Internet link to the Survey. All the questions of the questionnaire are closed ended; two multiple choices questions include an open-end choice.

Participants were asked to indicate their age based on the following categories: below 18, 18 – 21, 21 and older. Descriptive questions were directed to participants to address their practices on the Internet in relation to Online Safety. Different scales of measurement were used in designing the survey questions. The scales used in the survey are likert and interval level scales (questions 3, 4 and 10). Respondents were asked to indicate their level of agreement using a 5-point Likert scale (1 = *strongly agree* and 5 = *strongly disagree*) of items. The trust levels of certain Internet practices have been measured through ranking table (question 9)

Pre-test

For the pretest of the questionnaire, 10 AUC students were selected non-randomly in the main library, based on convenience. Among them, 55.6% were females and 44.4 % were male, with 9 respondents belonging to the 18-21 year-old age group, which is the focus age for this study. 100% of respondents have a blog or a social media account.

After the pre-test phase, the questions were discussed with the respondents and their feedback was incorporated in the second phase of designing the questionnaire.

Results

Quantitative data analysis was done through utilizing the SPSS (Statistical Package for the Social Sciences) software (Version 20.0). Categorical data were presented as frequencies (n) and percentages (%). Comparison between females and males regarding their trust of certain online activities was performed using Chi-square (x2) test. The significance level was set at P-value ≤ 0.05.

Reliability of the questionnaire was assessed using Cronbach's alpha reliability coefficient. Construct validity was assessed through factor analysis and correlation coefficients. Multivariate regression analysis was performed to determine the strongest gratification/motive factor and the significant predictors of the motives to use the Internet. Motives construct was the dependent variable while Safety, Trust and Risk were the independent variables.

Reliability

There are two basic goals in questionnaire design: to obtain information relevant to the purposes of the survey and to collect this information with maximum reliability and validity (Warwick & Linninger, 1975). Reliability has two dimensions referred to as repeatability and internal consistency (Zigmund, 1995).

Internal consistency refers to the ability of a scale item to correlate with other items in the scale that are intended to measure the same construct. Items measuring the same construct are expected to be positively correlated with each other. Cronbach's (alpha) is commonly used as a measure of the internal consistency of reliability. The coefficient normally ranges between 0 and 1. The closer it is to 1.0 the greater the internal

consistency of the items in the scale. Nunnaly (1978) has indicated 0.7 to be an acceptable reliability coefficient but lower coefficients are sometimes used in the literature (0.6).

Constructs in this study yielded alpha coefficient values ranging from 0.650 to 0.869 indicating acceptable level of internal consistency or homogeneity among the items under each construct. The Cronbach's alpha for each construct is presented in Table 2.

Table 2 – Reliability analysis (Cronbach's alpha values) for different constructs.

Constructs	**Cronbach's Alpha**
Motives (Question 3)	0.869
Safety (Question 4)	0.737
Trust (Question 9)	0.650
Risk (Question 10)	0.827

Validity

Validity can be defined as the degree to which a test measures what it is supposed to measure. Construct validity assessment for the present study was done through factor analysis. Factor analysis is a statistical approach involving finding a way of condensing the information containing a number of original variables into smaller sets of factors, also called dimensions, with a minimum loss of information (Hair et al., 2010).

Factor analysis was performed and resulted in elimination of a number of items (questions), which were extracted under each construct. Factor analysis identifies the items included in the constructs more clearly. Loadings range acceptable from the literature is usually greater than 0.5, however, some studies tend to use lower loadings when necessary.

Factor analysis for Motives construct resulted in 5 dimensions after elimination of 3 variables. The eliminated variables are: To communicate with friends, family, I wonder what other people said and being online is like a second nature.

Dimension 1(Interpersonal Utility) includes Questions 3-1, 3-3, 3-4, 3-5, 3-6, 3-7 and 3-9. Dimension 2 (Information Seeking) includes Questions 3-8, 3-14, 3-15, 3-16, 3-17 and 3-18). Dimension 3 (Entertainment) includes Questions 3-22, 3-23 and 3-24. Dimension 4 (Pass Time) includes questions 3-11, 3-12 and 3-13 while Dimension 5 (Convenience) includes questions 3-20 and 3-21.

Factor analysis for Safety construct resulted in 1 dimension without elimination of any item. Factor analysis for Trust construct resulted in 2 dimensions without elimination of any questions. Dimension 1 includes Questions 9-2, 9-4, 9-6 and 9-7 while Dimension

2 includes Questions 9-1, 9-3 and 9-5. Such dimensions will not be described or labeled due to insignificance for the purposes of this study. Regarding Risk construct, factor analysis resulted in 1 dimension without elimination of any item.

Construct validity was evaluated through measuring convergent validity (Table 3) which refers to how well different scales of items indicate the same or similar constructs, and how well multiple measures of the same construct agree with each other (Kerlinger, 1986). All correlations between the dimensions of each construct were more than 0.5, which proves the existence of convergent validity.

Table 3 – Convergent validity results

Construct	Dimension	Correlations range
Motives	Motives 1	0.514 – 0.690
	Motives 2	0.537 – 0.742
	Motives 3	0.552 – 0.761
	Motives 4	0.602 – 0.791
	Motives 5	0.563 – 0.773
Safety	Safety 1	0.591 – 0.826
Trust	Trust 1	0.520 – 0.765
	Trust 2	0.523 – 0.792
Risk	Risk 1	0.694 – 0.818

Presence of a high degree of multi-collinearity among dimensions in each construct results in several problems; which dictates the need to investigate the strength of relationships between these dimensions. In the present study, multicollinearity was measured only for Motive and Trust constructs (Because each construct had more than one dimension); the results (Table 4) showed that all dimension pairs are not highly correlated (all pair correlation is less than 0.5), proving the absence of multi-collinearity. Many researchers suggest that multi-collinearity exist if correlation between each determinant pair is greater than 0.75.

Table 4 – Multi-collinearity measures

Construct	Correlations range
Motives	-0.067 – 0.093
Trust	-0.053

Sample Characteristics

Age

In total, 421 responses were collected. Among the responses, 402 were from the target age group (18 - 21), and 19 responses older than 21 years old, which were excluded from the analysis.

Gender

Among the 402 participants, 36.1% (n= 145) were males while 63.9% (n=257) participants were females.

RQ1: What are the self-reported online practices of university youth?

Multiple questions were directed to participants in the questionnaire with the aim of gaining as much insight as possible into youth online activities. Among the sample 96.5% (n=388) have reported that they have a website, a blog or a social media profile, while 3.5% (n=14) reported not having a presence on social networking sites.

Among the respondents, 91.8% (n=369) indicated that they have a social networking presence where they publicly share real information about themselves while 8.2% (n=33) indicated that they don't.

As for the social networking sites used by youth, the most commonly used site was Facebook 89.6% (n=360) followed by Instagram 56.0% (n=225) and Twitter and 55.7% (n=224), then Google+ 18.7%(n=75). Only 10.7% (n=43) of the participants also use other sites and Tumbler 4.4% (n=18) came as the network chosen the most in this open-ended field of the question. Results illustrated in the descriptive Figure (1) on the next page.

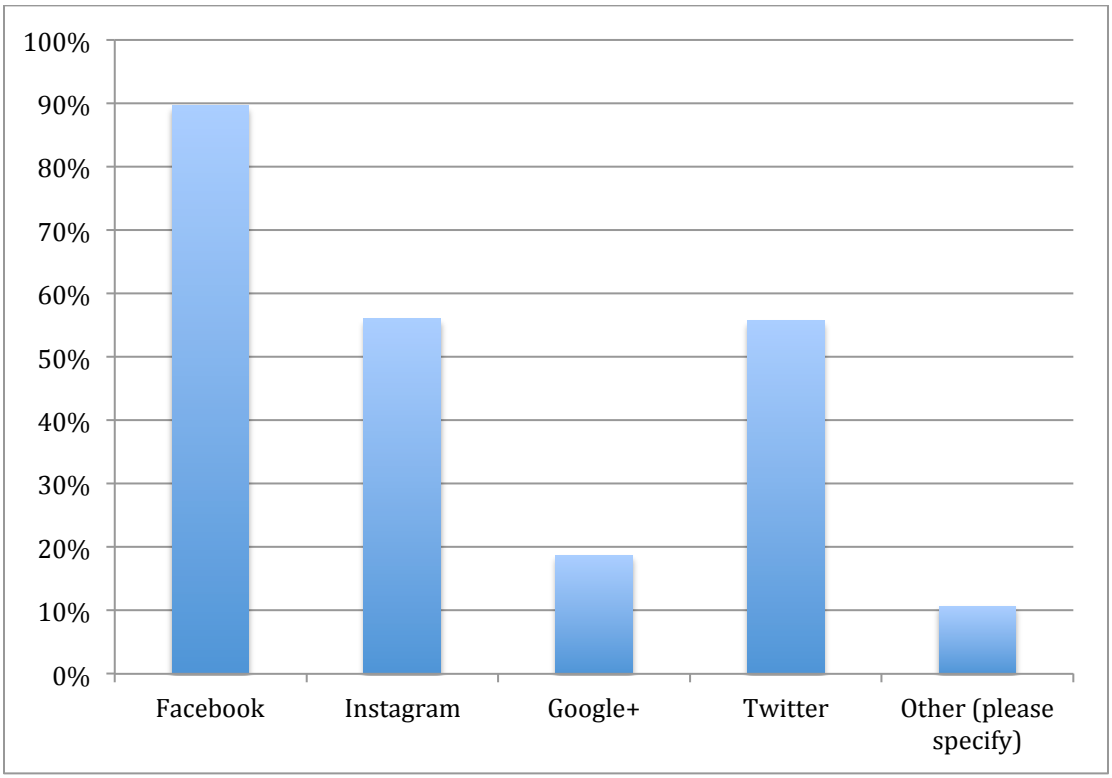

Figure (1): Social Networking Sites used

As participants were asked to check all that apply in this question, 84% of (n=340) have indicated that they use more than one network. 36.5% (n=147) use more two social networking sites.

Participants were asked which kinds of content or information is viewable by the public in their website, blog or social media profile. The most commonly viewable content was the first or last name followed by personal picture (98.9% and 76.7% respectively). Only 1.4% of the participants had no personal viewable content. 78.8 % (n=316) of participants have more than one piece of personal identifiable Information available to the public. Full results detailed in Table (5).

Table 5 – Frequencies (n) and percentages (%) of public viewable contents in the participant's website/blog/social media content

	n	%
First or last name	365	98.9
E-mail address	97	26.3
Picture (s) of the participant	283	76.7
Pictures and names of friends	168	45.5
Telephone number	24	6.5
Address	7	1.9
Birth date (some part or all of it)	197	53.4
Location	79	21.4
University name or location	144	39.0
None	5	1.4

In applying Uses and Gratifications model to understand why youth the Internet, Papacharissi and Rubin (2000) predictors of Internet use were utilized. The explanatory factor analysis is applied on 24 variables by using the method of Principal Component Analysis. Factor analysis was applied to see whether the variables summarize in the meaningful factors/dimensions or not.

Moreover, 72.6% agree/Strongly agree that they use the Internet to express themselves freely. 62.6 % agree/Strongly agree that being online is like second nature.

As for Information seeking, 81% agree/Strongly agree that they use the Internet to look for information. The study also revealed that the majority of the sample, 75.6% are mostly keen on following news on the Internet. Results are in Table (6) on the next page.

Table 6 – Frequencies (n) and percentages (%) of the reasons to use the Internet

	Strongly agree		Agree		Neutral		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%
To participate in discussions	46	11.4	118	29.4	176	43.8	52	12.9	10	2.5
Being online is like a second nature to me	91	22.6	161	40.0	64	15.9	39	9.7	47	11.7
To help others	51	12.7	167	41.5	108	26.9	41	10.2	35	8.7
To belong to a group	44	10.9	154	38.3	111	27.6	53	13.2	40	10.0
Enjoy answering questions	52	12.9	140	34.8	115	28.6	55	13.7	40	10.0
To express myself freely	78	19.4	157	39.1	98	24.4	34	8.5	35	8.7
To give my input	71	17.7	173	43.0	91	22.6	35	8.7	32	8.0
To get more points of view	121	30.1	171	42.5	58	14.4	21	5.2	31	7.7
To tell others what to do	50	12.4	113	28.1	99	24.6	79	19.7	61	15.2
I wonder what other people said	87	21.6	176	43.8	86	21.4	28	7.0	25	6.2
Passes time when bored	170	42.3	149	37.1	41	10.2	19	4.7	23	5.7
When I have nothing better to do	144	35.8	160	39.8	51	12.7	20	5.0	27	6.7
To occupy my time	132	32.8	159	39.6	62	15.4	22	5.5	27	6.7
New way to do research	173	43.0	154	38.3	37	9.2	15	3.7	23	5.7
To follow the news	143	35.6	161	40.0	50	12.4	26	6.5	22	5.5
To get information for free	168	41.8	145	36.1	43	10.7	20	5.0	26	6.5
To look for information	195	48.5	134	33.3	38	9.5	14	3.5	21	5.2
To see what is out there	170	42.3	158	39.3	43	10.7	13	3.2	18	4.5
To communicate with friends, family	170	42.3	132	32.8	49	12.2	25	6.2	26	6.5
Easier to e-mail or send a message than tell people	139	34.6	140	34.8	70	17.4	31	7.7	22	5.5
Because people don't have to be there to receive the message	116	28.9	133	33.1	92	22.9	28	7.0	33	8.2
It is entertaining	158	39.3	156	38.8	53	13.2	16	4.0	19	4.7
I just like to use it	121	30.1	167	41.5	71	17.7	16	4.0	27	6.7
It is enjoyable	136	33.8	165	41.0	59	14.7	21	5.2	21	5.2

As for the importance of each motives' dimension, Factor Analysis for Motives construct resulted in 5 dimensions after elimination of 3 variables. The eliminated variables are: To communicate with friends, family, I wonder what other people said and being online is like a second.

The model resulted in five interpretable factors comprised of 21 variables. According to the Regression Analysis, Factor 1 Interpersonal Utility, showed the highest weight (importance) (0.281) followed by Factor 2 Information Seeking (0.263), Factor 3 Entertainment (0.190), Factor 4 Pass Time (0.170) while Factor 5 Convenience showed the lowest weight (0.096). Table (7) displays factor analysis for Internet motives.

Table 7 – Factor analysis results for Internet use motives

I use the Internet ..	Components				
	1	2	3	4	5
Factor 1: Interpersonal Utility					
To participate in discussions	**.605**	.175	.087	.053	.158
To help others	**.634**	.214	-.008	.007	-.114
To belong to a group	**.676**	-.086	.005	.152	.116
Enjoy answering questions	**.690**	.001	.039	-.042	-.088
To express myself freely	**.621**	.029	.102	.095	.267
To give my input	**.669**	.146	.172	-.055	.210
To tell others what to do	**.617**	-.083	.010	.060	-.189
Factor 2: Information Seeking					
To get more points of view	.255	**.568**	.208	.088	-.188
New way to do research	.028	**.742**	.264	.083	.085
To follow the news	.236	**.584**	-.154	.413	.079
To get information for free	-.024	**.578**	.383	.016	.249
To look for information	-.036	**.718**	.231	.192	.196
To see what is out there	.032	**.556**	.149	.217	.391
Factor 3: Entertainment					
It is entertaining	.056	.279	**.632**	.118	.131
I just like to use it	.160	.156	**.648**	.253	.090
It is enjoyable	.092	.237	**.761**	.153	.140
Factor 4: Pass Time					
Passes time when bored	.062	.160	.328	**.692**	.165
When I have nothing better to do	.034	.233	.046	**.791**	.146
To occupy my time	.068	.099	.405	**.654**	-.018
Factor 5: Convenience					
Easier to e-mail or send a message than tell people	.065	.106	.193	.104	**.773**
Because people don't have to be there to receive the message	.076	.161	.091	.115	**.769**

Regarding the significant predictors of motives to use the Internet, results are presented in Table (8). The significant predictors of Motives 1 were risk and safety. Both predictors positively correlated with Motives 1. Risk showed the highest weight (importance) in predicting Motives 1 (0.516) while safety showed the lowest weight (0.442).

The significant predictors of Motives 2 were Trust 1 and Trust 2. Trust 1 positively correlated with Motives 2 construct while Trust 2 had negative correlation with Motives 2. Trust 1 showed the highest weight (importance) in predicting Motives 2 (0.752) while Trust 2 showed the lowest weight (0.248).

The only significant predictor of Motives 3 was Trust 2. Trust 2 had negative correlation with Motives 3.

The significant predictors of Motives 4 were Trust 2, Trust 1 and Safety. Trust 1 and Safety positively correlated with Motives 4 while Trust 2 had negative correlation with Motives 4. Trust 2 showed the highest weight (importance) in predicting Motives 4 (0.433) followed by Trust 1 (0.362) while Safety showed the lowest weight (0.206).

The significant predictors of Motives 5 were Trust 2 and Safety. Safety positively correlated with Motives 5 while Trust 2 had negative correlation with Motives 5. Trust 2 showed the highest weight (importance) in predicting Motives 5 (0.528) while Safety showed the lowest weight (0.290).

Table 8 – Regression model results for the significant predictors of motives to use the Internet.

Dependent variable	Predictors	Regression coefficient (β)	*P*-value
Motives 1 Interpersonal utility	Risk	0.285	<0.001*
	Safety	0.252	<0.001*
Motives 2 Information Seeking	Trust 1	0.313	<0.001*
	Trust 2	-0.180	<0.001*
Motives 3 Entertainment	Trust 2	-0.184	<0.001*
Motives 4 Pass Time	Trust 2	-0.138	0.007*
	Trust 1	0.141	0.013*
Motives 5 Convenience	Trust 2	-0.191	<0.001*
	Safety	0.149	0.005*
	Risk	-0.123	0.027*

**: Significant at $P \leq 0.05$*

In a question around viewing or visiting an Internet Safety related website, 70.72% (n=285) of the respondents have never visited a website or social media page on Internet Safety or Internet Security while only 29.28% (n=118) have done so.

An attempt to gain insight into the experience of being exposed to Internet risks has been made. For that, 4 specific questions were designed in the questionnaire. 56.2% (n=266) of the participants knew someone who faced a threat to their safety online, while 43.8% (n=163) did not. Moreover, 22.4% (n=90) of the respondents have said they have encountered a threat or a risk to their safety online, 77.6% (n=312) have not.

Among the (90) of respondents that reported facing an online threat to their safety, and as for the types of risks faced, results are presented in Table (9). Cyber bullying was the most commonly faced threat (22.2%) followed by other threats (21.1%) then identity theft (20.0%). The least common threat was sexual harassment (18.9%). Hacking 14.4% (n=13) came as the risk chosen the most in the open-ended field (others) of the question.

Table 9 – Frequencies (n) and percentages (%) of threat types

	n	%
Identity theft	18	20.0
Cyber bullying	20	22.2
Sexual harassment	17	18.9
Other (hacking, scam,…etc.)	19	21.1

As for whom this experience was shared with, 43 participants (out of the 90 who faced threats) representing 47.8% have told someone about the threat. Most of the participants (90.7%) reported the online threat to their friends followed by social media websites (58.1%), family (37.2%) then the police (7.0%). University or school management (4.7%) was the least reported authority. Results in Table (10).

Table 10 – Frequencies (n) and percentages (%) of respondents who have told about the online threat

	n	%
Family	16	37.2
Friends	39	90.7
Social media websites	25	58.1
University or school management	2	4.7
Police	3	7.0

RQ2: What are the trust levels of the safety of certain online practices?

In attempt to gain insight into the perception of safety by youth in relation to voluntarily sharing personal information publicly on the Internet, participants were asked to assess how safe or unsafe sharing such information. Participants were asked to evaluate how safe or unsafe 7 Internet practices or behaviors.

In relation to evaluating the safety of publicly listing favorite place to hang out visible to the public on a website, blog, social media profile, 67.2% of respondents think it's sometimes safe/Safe to do so. 76.3% of respondents think it's sometimes safe/Safe to have a personal picture or picture of friends visible to the public. Full results are in Table (11) on the next page.

Table 11 – Frequencies (n) and percentages (%) of trust in safety levels

	Never Safe		Sometimes Safe		Safe		No answer	
	n	%	n	%	n	%	n	%
Put my real name visible to the public on a website, blog, social media profile	32	8.0	211	52.5	142	35.3	17	4.2
Put my home address visible to the public on a website, blog, social media profile	206	51.2	137	34.1	42	10.4	17	4.2
Put the name of my University visible to the public on a website, blog, social media profile	40	10.0	204	50.7	141	35.1	17	4.2
Put a picture of myself and/ or my friends visible to the public on a website, blog, social media profile	78	19.4	245	60.9	62	15.4	17	4.2
List my favorite sports/activities visible to the public on a website, blog, social media profile	37	9.2	164	40.8	184	45.8	17	4.2
List where I like to hang out visible to the public on a website, blog, social media profile.	115	28.6	191	47.5	79	19.7	17	4.2
Meet in person a friend that I made online	131	32.6	208	51.7	46	11.4	17	4.2

Hypothesis: There is a difference in youth reported unsafe online practices based on gender.

This hypothesis was tested by Chi-square test for comparison between answers to Question 9 by females and males represented in (Tables 12.1 -12.7).

Chi Square tests

Table 12.1 – Frequencies (n), percentages (%) and results of Chi-square test for comparison between females and males response to trust of safety in putting the real name in public websites

	Females		Males		*P*-value
	n	%	n	%	
Never safe	15	6.0	17	12.4	0.025*
Sometimes safe	132	53.2	79	57.7	
Safe	101	40.7	41	29.9	

**: Significant at P ≤ 0.05*

P-value is less than .05 indicating significance of gender as a variable in the Internet practice of putting real name online publicly available.

Table 12.2 – Frequencies (n), percentages (%) and results of Chi-square test for comparison between females and males response to trust of safety in putting the home address in public websites

	Females		Males		*P*-value
	n	%	n	%	
Never safe	139	56.0	67	48.9	0.400
Sometimes safe	83	33.5	54	39.4	
Safe	26	10.5	16	11.7	

**: Significant at P ≤ 0.05*

P-value is more than .05 indicating insignificance of gender as a variable in the Internet practice of putting the home address in publicly available online.

Table 12.3 – Frequencies (n), percentages (%) and results of Chi-square test for comparison between females and males response to trust of safety in putting the university name in public websites

	Females		Males		*P*-value
	n	%	n	%	
Never safe	25	10.1	15	10.9	0.393
Sometimes safe	126	50.8	78	56.9	
Safe	97	39.1	44	32.1	

**: Significant at P ≤ 0.05*

P-value is more than .05 indicating insignificance of gender as a variable in the Internet practice of putting university name online publicly available.

Table 12.4 – Frequencies (n), percentages (%) and results of Chi-square test for comparison between females and males response to trust of safety in putting personal pictures in public websites

	Females		Males		*P*-value
	n	%	n	%	
Never safe	52	21.0	26	19.0	0.133
Sometimes safe	163	65.7	82	59.9	
Safe	33	13.3	29	21.2	

**: Significant at P ≤ 0.05*

P-value is more than .05 indicating insignificance of gender as a variable in the Internet practice of putting personal pictures online publicly available.

Table 12.5 – Frequencies (n), percentages (%) and results of Chi-square test for comparison between females and males response to trust of safety in listing favorite sports/activities

	Females		Males		*P*-value
	n	%	n	%	
Never safe	18	7.3	19	13.9	0.067
Sometimes safe	104	41.9	60	43.8	
Safe	126	50.8	58	42.3	

**: Significant at P ≤ 0.05*

P-value is more than .05 indicating insignificance of gender as a variable in the Internet practice of putting university name online publicly available.

Table 12.6 – Frequencies (n), percentages (%) and results of Chi-square test for comparison between females and males response to trust of safety in listing where they like to hang out in public websites

	Females		Males		*P*-value
	n	%	n	%	
Never safe	81	32.7	34	24.8	0.044*
Sometimes safe	125	50.4	66	48.2	
Safe	42	16.9	37	27.0	

**: Significant at P ≤ 0.05*

P-value is less than .05 indicating significance of gender as a variable to trust of safety in listing where favorite places to hang out.

Table 12.7 – Frequencies (n), percentages (%) and results of Chi-square test for comparison between females and males response to trust of safety in meeting an online-made friend in public websites

	Females		Males		*P*-value
	n	%	n	%	
Never safe	96	38.7	35	25.5	0.023*
Sometimes safe	122	49.2	86	62.8	
Safe	30	12.1	16	11.7	

**: Significant at P ≤ 0.05*

P-value is less than .05 indicating significance of gender as a variable to trust of safety in meeting an online made friend.

The following graphs (2, 3 and 4) will illustrate a comparison between females and males in their assessment of the safety of certain online practices.

Putting the real name in public websites: females showed statistically significantly higher percentage of reporting that it is safe to put the real name in public while males showed higher percentage of reporting that it is never safe or sometimes safe.

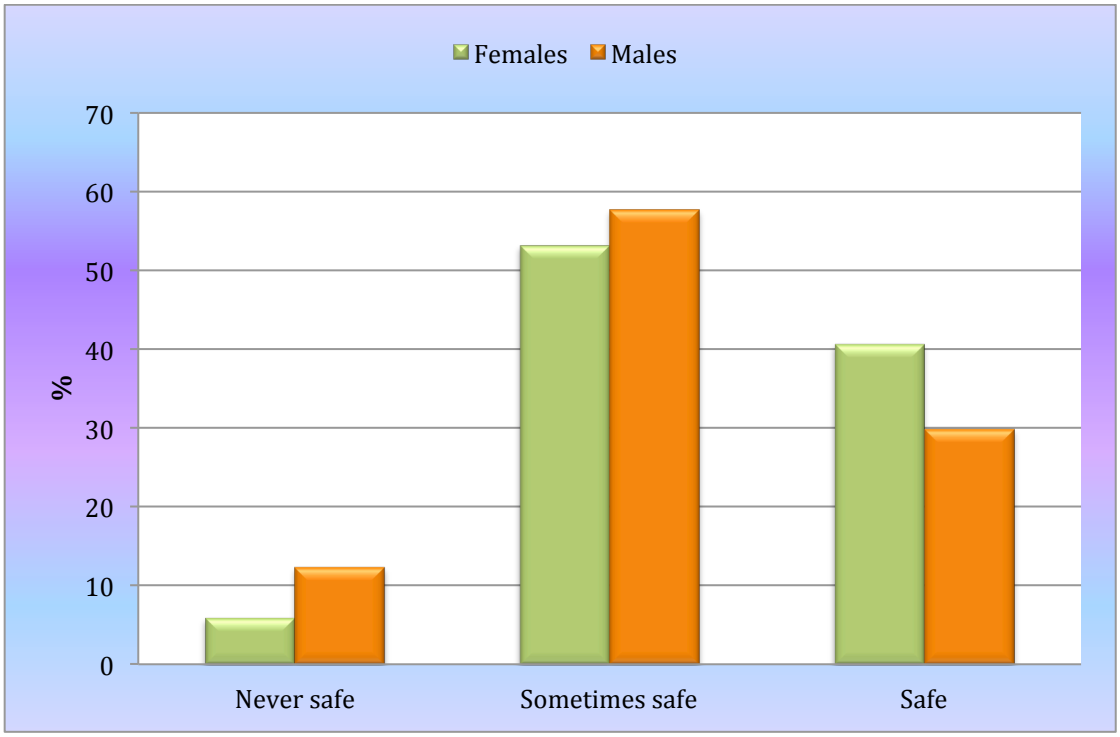

Figure (2): Bar chart representing percentage of trust levels for females and males who put their real names visible to the public on websites

Listing where they like to hang out: females showed statistically significantly higher percentage of reporting that it is never safe or sometimes safe to list where they like to hang out while males showed higher percentage of reporting that it is safe.

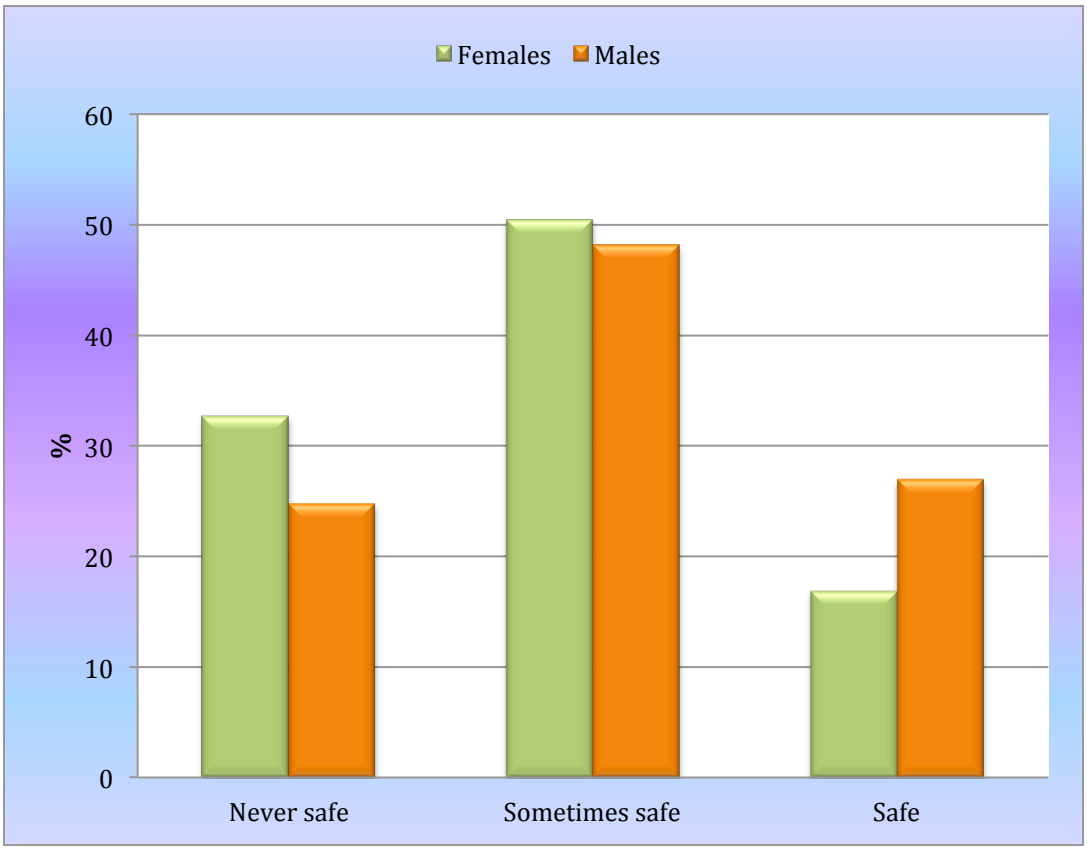

Figure (3): Bar chart representing percentage of trust levels for females and males who list where they like to hang out in public on websites

Meeting an online-made friend: females showed statistically significantly higher percentage of reporting that it is never safe to meet an online-made friend while males showed statistically significantly higher percentage of reporting that it is sometimes safe. However, both genders showed nearly the same percentage of reporting that it is safe (12.1% and 11.7% for females and males, respectively).

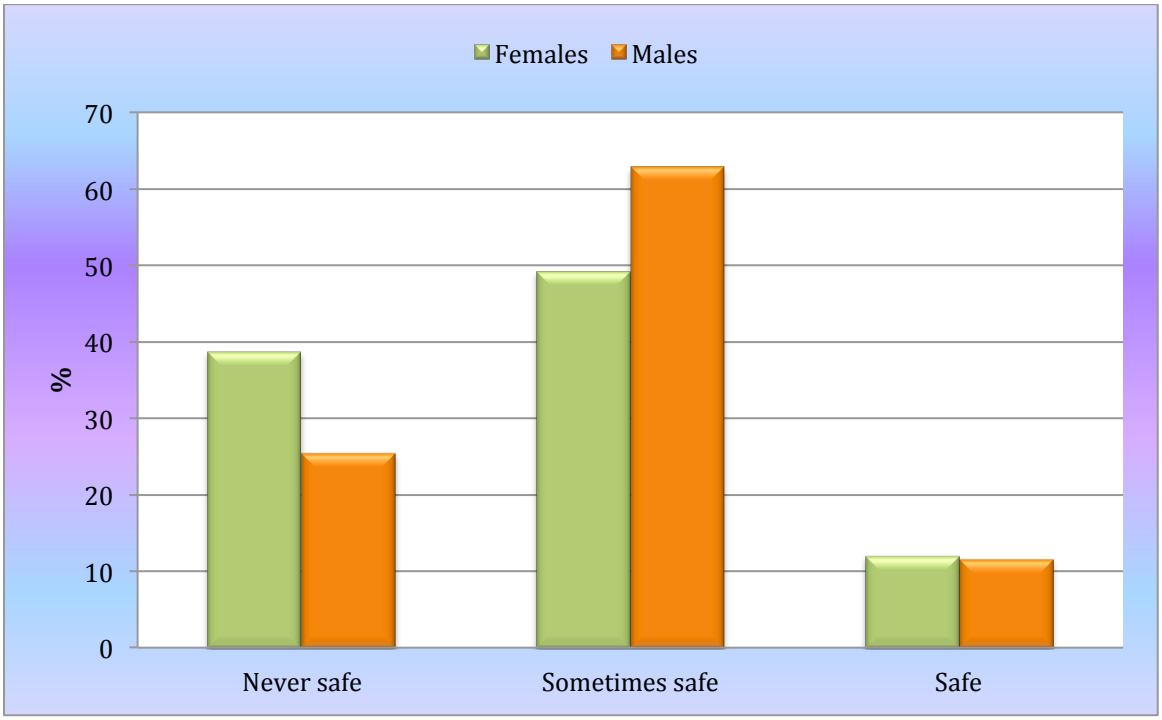

Figure (4): Bar chart representing percentage of trust levels for females and males who can meet an online-made friend

Moreover, participants were asked directly how safe they think the Internet is for communication, and how reliable are information being disseminating on it. Results are presented in Table (13) on the next page. 53.5% of the participants agreed/Strongly agreed that Internet is a safe place to communicate, 15.1% of the participants were neutral while 31.3% disagreed/Strongly disagreed that Internet is a safe place to communicate.

Regarding Internet as reliable source of information, 55.9% of the participants agreed/Strongly agreed that it is, 28.1% of the participants were neutral while 15.9% disagreed/Strongly disagreed that Internet is a reliable source of information.

Slightly less than half, 43.0% of the participants agreed/Strongly agreed that social media websites are safe communication networks, 21.1% of the participants were neutral while 35.8% disagreed/Strongly disagreed that social media websites are safe communication networks.

There were 36.1% of the participants that agreed/Strongly agreed that news shared by their friends on social media sites are reliable, 30.6% of the participants were neutral while 33.4% disagreed/Strongly disagreed that news shared by their friends on social media sites are reliable.

Table 13 – Frequencies (n) and percentages (%) of the evaluation of Internet Safety

	Strongly agree		Agree		Neutral		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%
Internet is a safe place to communicate	71	17.9	123	35.6	61	15.1	79	20.1	45	11.2
Internet is a reliable source of Information	60	14.9	165	41.0	113	28.1	37	9.2	27	6.7
Social media websites are safe communication networks	45	11.2	128	31.8	85	21.1	95	23.6	49	12.2
The news shared by my friends on social media sites are reliable	47	11.7	98	24.4	123	30.6	79	19.7	55	13.7

In a question around risk taking behaviors in relation to Internet practices, results are as detailed in the table below (14). 35.6% of the respondents agree/Strongly Agree with the statement "I like Internet activities that could include risk". 32.4% indicated that the greater the risk, the more fun the Internet activity.

Table 14 – Frequencies (n) and percentages (%) for the evaluation of risk

	Strongly agree		Agree		Neutral		Disagree		Strongly Disagree		No answer	
	n	%	n	%	n	%	n	%	n	%	n	%
I like the Internet activities that could include risks	24	6.0	119	29.6	88	21.9	77	19.2	69	17.2	25	6.2
I often look for things to do on the Internet that society might not like	24	6.0	134	33.3	86	21.4	71	17.7	62	15.4	25	6.2
I consider myself a risk taker	30	7.5	118	29.4	137	34.1	59	14.7	33	8.2	25	6.2
The greater the risk, the more fun the Internet activity	22	5.5	108	26.9	103	25.6	73	18.2	71	17.7	25	6.2
I often think about things that would create fear or anxiety for me	27	6.7	130	32.3	100	24.9	62	15.4	58	14.4	25	6.2

Discussion

This thesis aimed at investigating youth's use of the Internet in the context of Online Safety. For that, review of history of the Internet in Egypt was introduced along with examples of possible Safety and Security Risks that could be faced online. Moreover, the particular nature of the Internet was discussed as it's key to do so in order to better research the subject matter. Also, light was shed on the use of Social Media or Social Networking Sites in Egypt, in the context of Online Safety.

In an attempt to explore how and why Internet is being used through students self-report, the theoretical framework of the Uses and Gratifications was applied. Also, a review of Erik Erikson Psychosocial theory was introduced to shed light on the concept of trust for human beings and particularly youth. To address the research questions of this study, a questionnaire was designed and distributed to 421 students of the American University in Cairo, through University web portal service.

The results of this study and the implications these results have in understanding youth on the Internet and their safety online are discussed in this chapter. Limitations of this research will be highlighted along with future research suggestions and recommendations for the field.

The survey instrument used in this study sought to answer two research questions; revolving around investigating youth self reported online activities and trust levels of the Online World.

The first research question explored how and why youth use the Internet and Social Networking Sites.

RQ1: What are the self-reported online practices of university youth?

How youth use the Internet

Results indicate that having a presence on Social Networking Sites is popular among this audience. The vast majority of participants (96.5%) have a personal website, a blog or a social media profile, while only (3.5%) do not. Another indication on popularity is that the majority of participants, 84% (n=340), have indicated that they use more than one network.

This is aligned with the Arab Social Media Report (2014) that indicates the popularity of such services in the Arab world and in Egypt. According to the report, Egypt produced 17% of all tweets in the Arab world coming in second place of most producing countries, after Saudi Arabia. Moreover, Egypt continues to constitute about a quarter of all Facebook users in the region (24%) and has gained the highest number of new Facebook users since January 2014, with an increase of over 2.6 million users between June 2010 and May 2014.

To further explore the social networking sites used by youth, participants were asked about the services they use. The most commonly used site was Facebook (89.6%) followed by Instagram and Twitter (56.0% and 55.7%, respectively) then Google+ (18.7%) followed by Tumbler (4.4%)

An interesting finding here is the increasing popularity of Instagram, an online mobile photo-sharing, video-sharing and service that offers its users the ability to take and share pictures, videos and comments. Facebook acquired the service in April 2012. The number of respondents in this study who use Twitter are almost the same as

Insgtaram users. The previous provides an insight on the growing popularity of different Social Media Services and provides a new dimension to the traditional view that categorizes Facebook and Twitter as the most popular Social Networking Sites in Egypt.

One of the aims of this research was to investigate the nature of the voluntary disclosure of personal information on the Online World through sharing such information on a website, blog or a social media profile. The vast majority of participants, 91.8% (n=369), indicated that they have a social networking presence where they publicly share real information about themselves. This is an interesting result considering the fact that not all Social Media websites require having an authentic identity on their platforms.

Participants were asked which kind of contents or information is viewable by the public in their website, blog or social media profile. The most commonly viewable content was the first or last name (98.9%) followed by personal picture (76.7%). In regards to openly sharing university name or location, less than half (39%) have done so. Only 1.4% of the participants had no personal viewable content on their online presence.

It's important to highlight that 78.8 % (n=316) of participants have more than one piece of personal identifiable Information available to the public. This could be looked at as worrying finding considering the voluntary nature of such actions or Internet practices.

The previous provides an indication that youth openly share personal Information through their online presence or Digital Identity. This provides more reasons for increasing awareness on the risks that comes with such online practices. The more youth share personal information online, the more the chances of exposure to online risks occur.

Reasons for Internet use

One of the main objectives of this study was to investigate why university youth use the Internet or in other words, what are the motives or gratifications for being online.

As for the importance of each motive for Internet use in this study, Interpersonal Utility showed the highest importance (the strongest gratification factor) followed by Information Seeking, Entertainment, Pass Time while Convenience showed the lowest importance or weight.

Based on the analyzed results, the main reason for using the Internet among Egyptian youth is getting interpersonal utility. Adding to that, of the respondents in this study, 72.6% agree/Strongly agree that they use the Internet to express themselves freely. This suggests that participants view the Internet mainly, as an Interpersonal utility mean to satisfy certain needs such as affection, inclusion/companionship, and control.

As for information seeking, 81% agree/Strongly agree that they use the Internet to look for information. The study also revealed that the majority of the sample, 75.6% are mostly keen on following news on the Internet. This also indicates that youth in Egypt are aware of the value of Internet as news and an information source, and a mechanism for learning and research.

Such results are slightly differing from previous research of different populations (See for example Papacharissi, Z., & Rubin, A. M. 2000) who indicated that Information seeking, entertainment and convenience were found to be the most salient or important motivations, while pass time and interpersonal utility were found to be less salient motivations for general Internet use among the chosen sample. Also, in researching the

motives for Internet use by Arab students in Egypt, Abdualla (2003) found that Information seeking followed by Surveillance to be the strongest gratification factors.

According to Uses and Gratification theory, audiences make decisions to choose from different media options. They frequently choose the media that will fulfill their needs. This choice comes from a match between what people expect to be fulfilled from their exposure to certain media and their perception of what this media will offer.

An interesting result of this question was that 62.6% of respondents have stated than being online is like a second nature to them. It provides an indication on how integral Internet became in the lives of many young Egyptians. More research is needed to investigate the frequency and heaviness of Internet use by youth in Egypt, and how modern technologies and having multiple access points to the Internet (Laptops, Mobile phones and Game consoles) affects one's safety online and Internet behaviors.

Exposure to online risks

In relation to viewing an Internet Safety related website, 70.72% of the respondents have never visited a website or social media page on Internet Safety or security while only 29.28% have done so. While there are different variables that could contribute to making such a decision of visiting a page or a website on Online Safety, one could argue that visiting such pages or attempting to gain knowledge on the subject matter is not taking place as it should be. Especially if compared to the popularity of the use of such services.

"Even when users know they are sharing personal data with a site or service, most users (80 percent) do not always read privacy policies and a significant fraction (12

percent) of respondents admitted that they never read privacy policies" (Global Internet User Survey, 2012)

It's key here to raise awareness on the need of visiting such resources and gaining knowledge on the possible Safety and Security risks that could be faced online. For example, and while the vast majority of respondents have Social Media presences, visiting the related safety pages such as Facebook's or Twitter's was minimal. It's crucial to increase Internet user's knowledge on the topic. Internet users particularly children and adolescents need to learn how to avoid online risks and to get familiar with how to deal with such possible hazards if occurred.

One of the aims of this thesis was to attempt to gain insight into the experience of being exposed to Internet risks. 56.2% (n=266) of the participants knew someone who faced a threat to their safety online.

Moreover, 22.4% of the respondents have said they have encountered a threat or a risk to their safety online. Among the respondents that reported facing an online threat to their safety, and as for the type of risks faced, Cyber bullying was the most commonly faced threat (22.2%) followed by other threats (21.1%) then identity theft (20.0%). The least common threats were sexual harassment and hacking (18.9% and 14.4% respectively). While there were no particural risk that was faced the most by respondents, it's apparent that such types of negative experiences are being faced to some extent by univeristy youth while being online.

It's important to highlight that only around half of those who faced an online threat (47.8%) have told someone about this experience. This is an alarming result considering the dangers that could occur if youth did not share such experiences with

others who could provide support and help overcome any harm. This also could contribue negaitvely to the development of youth as such experiences could constintue crisis into youth identity formation.

As for whom this experience was shared with, the vast majority of those who faced an online threat (90.7%) reported the online threat to their friends followed by social media websites (58.1%), family (37.2%) then the police (7.0%). University or school management (4.7%) was the least reported authority. There are different reasons as to why youth could choose to share such experiences mostly with friends. This could be due to embarrassment or due to fear of family or even lack of knowledge on how to best to react to such experiences. It's important to highlight that only 11.7% of those who faced a threat have told their university or school management or have reported this to the authorities.

This provides additional reasons for the importance of researching the topic under the umbrella of students self report on online practices. It's key for researchers and families to learn the experiences of youth when facing a risk, and how they choose to deal with it.

RQ2: What are the trust levels of the safety of certain online practices?

Trust in the safety of publicly sharing personal information online

In attempt to gain insight into the perception of safety by youth in relation to voluntarily sharing personal information publicly on the Internet, participants were asked to assess how safe or unsafe sharing such information.

Descriptive statistics such as frequency counts and percentages were used to present a summary of the characteristics of the data for this question. Results suggest that youth do not perceive publicly sharing personal online as unsafe as they should be.

In relation to evaluating the safety of publicly listing favorite place to hang out visible to the public on a website, blog, social media profile, 67.2% of respondents think it's sometimes safe/safe to do so. 76.3% of respondents think it's sometimes safe/Safe to have a personal picture or picture of friends visible to the public.

Among the types of online behaviors most frequently categorized, as never safe by the students who participated in this study were revealing their home address, favorite hangouts, and meet with a friend made online.

Among the types of online practices most frequently categorized, as safe by youth in this study were publicly listing favorite sports or activities, real name and name of university.

The previous provides more indications that suggest some limitation on youth knowledge and awareness of privacy protection, Online Safety and possible online risks. "Even though many users are aware of the risks that they might face out of revealing their detailed personal information, they still give more value to the socialization benefit than

their own privacy. For example, a study showed that Internet users' concerns about online privacy have no significant impact on revealing their information on the website" (Alfred, 2014)

Moreover and in order to gain deeper insights into university youth perception of the safety of the Internet and Social Networking sites, participants were asked directly how safe they think the Internet is for communication, and how reliable are information being disseminating on it.

Of the participants 53.5% agreed/Strongly agreed that Internet is a safe place to communicate. 55.9% of the participants agreed/Strongly agreed that internet is a reliable source of information and 43.0% of the participants agreed/Strongly agreed that social media websites are safe communication networks. There were 36.1% of the participants that agreed/Strongly agreed that news shared by their friends on social media sites are reliable.

In general, the findings suggest that respondents could be in favor of trusting the online world and considering the Internet and social networking sites as a safe place to communicate and to share real personal information. It would be challenging to make a determination on the perception of how safe are the Internet and Social Networking Sites. That being said, it's important to highlight that the purpose of this paper is to raise awareness on possible risks and how to combat them, rather than promote fear of this great invention that is the Internet.

As trust is the first development stage according to the psychosocial theory of development by Erik Erikson, one could argue that youth trust in the online world happens through stages. Malicious messages that fly through the Online World such as a

child exploitation messages could be considered as a crisis that could harm youth development. Moreover, the level of trust between an Internet user and the specific service used or webpage accessed, could contribute to the related Internet practices and behaviors.

Hypothesis: There is a difference in youth reported unsafe online practices based on gender.

As stated, the results indicated that there were differences in youth reported unsafe online activities based on gender. This is a similar to findings of other research studying different populations (See for example, Berrier, T. 2007)

While this could be a universal trend according to some researchers, researching this topic must be put in appropriate context that considers cultural and societal norms of each population. Family strict control over females and living in conservative communities like the ones in the Middle East or in Egypt, could heavily contribute to the perspective of people on such differences of perception of Internet practices. Moreover, studying other variables impact on such perception is key for any future research around this point.

In this study, females showed statistically significantly higher percentage of reporting that it is safe to put the real name in public while males showed higher percentage of reporting that it is never safe or sometimes safe.

Females showed statistically significantly higher percentage of reporting that it is never safe or sometimes safe to list where they like to hang out while males showed

higher percentage of reporting that it is safe. As stated, this could be interpreted within the cultural context youth live in.

Females showed statistically significantly higher percentage of reporting that it is never safe to meet an online-made friend while males showed statistically significantly higher percentage of reporting that it is sometimes safe. However, both genders showed nearly the same percentage of reporting that it is safe (12.1% and 11.7% for females and males, respectively).

"Findings indicate that rather than transcending or overcoming gender differences in wider society, Internet use by males and females seems to reflect, and in some instances even exacerbate, these broader trends. Thus we support the view that gender differences in the use of the Internet are more a reflection of gender differences in wider society and thus more resistant to change than some people have suggested." (Joiner et al., 2012)

Adding to that, Internet is a culture on its own in which norms are developed, shared, and transferred to other users. While researching topics like trust and safety, the dynamics of the Internet must be put into consideration to better understand how the relationship between a user and the Online world is formed and the stages of its development.

Risk Taking

An attempt was made to shed light on risk taking behavior by youth while being online to further understand the trust levels of the Internet. 35.6% of the respondents agree/Strongly Agree with the statement "I like Internet activities that could include risk".

32.4% indicated that the greater the risk, the more fun the Internet activity. Such findings could provide an alert especially if put in Online Safety context.

In this research, risk taking is a significant predictor of the use of the Internet for Interpersonal utility. Developmentally, adolescents have often been described as particularly vulnerable to risky behavior and several theories have explored these actions. "Some researchers have suggested that risk taking is (a) associated with personality traits that disinhibit action by minimizing or distorting potential for harm (b) a learned behavior resulting from poor interactions in the family system (c) a developmental phenomenon in which lack of experience leads to an error of judgment regarding level of risk (d) a failure to categorize actions as falling within the moral domain of behavior so that personal gain is emphasized over safety for self and others." (Berson & Berson, 2005)

More research is needed to investigate what type of gratifications youth acquire from participating in and enjoying online activities in which they are consciously aware of the risks associated with it.

Limitations

The population of this research is from one Academic Institution, which is the American University in Cairo (AUC). This is not representative of the Egyptian Youth students. This thesis hopes to shed light and raise awareness on the topic, start the discussion around it and encourage research in this field.

Also, there might be unexamined factors affecting the way and the, reasons youth use the Internet and their Online Safety practices that are not accounted for in the methodology. Although the motive measurement scales were replicated from previous studies, these motives are not completely comprehensive.

Descriptive statistics were used to gain insight into youth trust in the Online World. More in-depth factor analysis is needed to further research the topic. Also, Safety related questions utilized for this study were adapted from previous studies investigating Internet use among younger audiences.

Conclusion

The Internet is an invention that contributes very positively to the development of human beings and civilization. The invention of this medium has revolutionized science and communication. It also offered its users access to knowledge and information that could have been impossibly accessed without having this invention. The Internet is used for different reasons across the globe and across age segments. We have seen the Internet being used for noble causes such as open source medical vaccines manufacturing services. Also, Egyptian and Arab youth made use of the Internet and Social networking sites to promote for positive social and political change.

As the Internet becomes more integral in Egyptian people's lives, there's a need to shed light on the risks of being Online. One could argue that there's limitation on the awareness around Online Safety in Egypt. In order to use the Internet for good purposes, threats and risks of it must be understood and the first step on this road is to research the topic, while focusing on youth and children self-report on Internet practices.

Young people should be equipped with the knowledge on such dangers and with mechanisms to be able to combat it. It's key to realize that youth who have a solid basic understanding of cyber safety, cyber security, and cyber ethics are more likely to make safe and responsible choices when engaging in online activities.

The results of this paper suggest that youth trust having an online presence where they share real information about themselves. It also indicates that they use the Internet for personal usefulness and for seeking information, and that youth are aware of the huge values of this medium. This is positive and could have great impact on the constructive use of the Internet. And as the Internet is becoming increasingly important in young

people's minds, they must be protected from malicious messages that could trouble their development and their positive use of the Internet.

There's also a crucial need to combine youth's own report on the matter with other stakeholder's input. Families, Researchers, Teachers and policy makers should work together to create preventive measures to keep Internet users as safe and as secure as possible. There are legal, technological and educational efforts that need to take place.

Future research suggestions

Future studies conducted using a probability-selected sample and a larger number of participants are encouraged, as well as in-depth interviews with researchers. Investigating motives for and activities of Internet and Social Media use among this audience could reveal new outcomes.

More research is needed to be conducted using populations more diverse in socioeconomic background and environmental conditions than those available in this study. Also, It's crucial for future research to focus on Internet users self-report and to properly identify and investigate the risks that could come with being online.

An in-depth study investigating youth disclosure of personal information on social networking sites should be conducted to provide insight into the extent young people place themselves at risk.

Recommendations

Creating an impactful campaign that aims at protecting people online, a recommendation of this thesis, is inevitable in order to prevent harm towards families, adults and children. There's a need to create a community-wide effort to promote Online Safety education. It will be great for such a campaign to raise awareness on the subject matter and educate Internet users on possible risks. It should also have a balanced message that allows Internet users to gain from this great invention, while being aware of certain safety practices that could contribute to increasing the chances of being harmed from such experience.

In relation to the legal side of the subject matter, there's a need to create

comprehensive set of laws that tackles the issue and that help in preventing online crimes. Also, there's a need for legal definition that clearly defines cybercrimes.

Homes and educational institutions should be responsible for teaching children and youth how to practice safe and responsible use of the Internet. There's an important partnership that needs to take place between families teachers, researchers, policy makers and young ones them selves, as they are the stakeholders in this issue.

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Appendix

(IRB Informed consent template, which is included in the e-survey)

THE AMERICAN UNIVERSITY IN CAIRO
INSTITUTIONAL REVIEW BOARD

Documentation of Informed Consent for Participation in Research Study

Project Title: University Youth and Online Safety: Use and Trust

Principal Investigator: Dr. Naila Hamdy

*You are being asked to participate in a research study. The purpose of the research is tell the story of youth use of the Internet and Social Media in the context of Online Safety. The study also hopes to explore Online risks, and the findings may be presented. The expected duration of your participation is 7 minutes.

The procedures of the research will be as follows: Literature Review, Theoretical Framework and Methodology Chapters for this paper have been conducted. Upon receiving the results of the questionnaire, the data will be analysed and conclusion will be completed. The thesis, which is in partial fulfilment of the requirements for the degree of Master of Arts, will be presented to Journalism and Mass Communication Department, at the American University in Cairo.

*There will be certain risks or discomforts associated with this research. Few of the questionnaire's question aim to explore how youth use the Internet, for that questions about what are your practices Online are included. Some questions are related to your personal experiences on the Internet and the exposure to Online risks.

*There will be benefits to you from this research. One of the aims of this research is to raise awareness on the topic of Online Safety in Egypt. This could help in creating a safer world and a safer Online space where you can enjoy using the Internet and Social media, while being comfortable and secure.

*The information you provide for purposes of this research is anonymous.

*If you are interested to know the results and findings of the research or if you have any questions, please contact n_alsherif@aucegypt.edu or call +353871814855 (Please feel free to send an SMS and you will be called). Please use the previous contacts in the event of any research-related injuries.

*Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

(Text included in the email sent by AUC Students Online Services through AUC portal)

"Dear colleague,
I am a Journalism and Mass Communication (JRMC) graduate student at AUC, and I am conducting a research on the Online Safety of University youth. This questionnaire is part of a thesis that fulfills the requirements for the degree of Master of Arts, which will be presented to Dr. Naila Hamdy. The research aims at analyzing how the Internet is being used by youth in Internet Safety context and the possible risks that could be faced on the Online World. I know that this is a busy time of year for you, but I hope that you will take just a little time (5-7 minutes) to participate in this brief web survey. The survey is voluntary and anonymous.

Link to the web survey: https://www.surveymonkey.com/s/DHCRVR6

Sincerely,
Nasser Alsherif"

Questionnaire

1. What is your gender?
□ Male □ Female

2. What is your age?
- Under 18 years old
- 18-21 years old
- Above 21 years old

3. The following statements describe reasons why you might use the Internet. Please describe how much you agree with each statement.

I use the Internet	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
To participate in discussions					
Being online is like a second nature to me					
To help others					
To belong to a group					
Enjoy answering questions					
To express myself freely					
To give my input					
To get more points of view					
To tell others what to do					
I wonder what other people said					
Passes time when bored					
When I have nothing better					

to do					
To occupy my time					
New way to do research					
To follow the news					
To get information for free					
To look for information					
To see what is out there					
To communicate with friends, family					
Easier to e-mail than tell people					
Because people don't have to be there to receive the message					
It is entertaining					
I just like to use it					
It is enjoyable					

4) Please evaluate the following statements.

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Internet is a safe place to communicate					
Internet is a reliable source of information					
Social media websites are safe communication networks					
The news shared by my friends on social media sites are reliable					

5) Do you have your own website/blog/social media profile? (Example: Facebook, twitter). If the answer is No, please move to Question 9.
□ Yes □ No

6) If yes, which of the following social networking sites you use? (Check ALL that apply)
□ FB
□ Instagram
□ Google+
□ Twitter
□ Other: …….

7) Do you have a social media profile a blog or a website where you share real information about yourself (e.g. Real name, real personal picture etc.)?
□ Yes □ No

8) If yes, which of the following contents is viewable by the public in your website/blog/social media profile, where you share real information about yourself? (Check ALL that apply)

- My first or last name
- My e-mail address
- Picture(s) of me
- Pictures and names of my friends
- My telephone number
- My address
- My birth date (either some part of or all of)
- My Location
- My University name or its location
- None

9) Pleae read each statement and describe how safe you think each activity is.

	Never Safe	Sometimes Safe	Safe
Put my home address visible to the public on a website, blog, social media profile			
Put my home address visible to the public on a website, blog, social media profile			
Put the name of my University visible to the public on a website, blog, social media profile			
Put a picture of myself and/ or my friends visible to the public on a website, blog, social media profile			
List my favorite sports/activities visible to the public on a website, blog, social media profile			
List where I like to hang out visible to the public on a			

website, blog, social media profile.			
Meet in person a friend that I made online			

10) Please indicate how much each of the following sentences describes you.

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
I like the Internet activities that could include risks					
I often look for things to do on the Internet that society might not like					
The greater the risk, the more fun the Internet activity					
I often think about things that would create fear or anxiety for me					

11) Have you ever visited a website or social media page on Internet Safety or Security?
□ Yes □ No)?

12) Do you know someone who faced a threat to their safety online (e.g. harassment, bullying etc.)?
□ Yes □ No

13) Have you ever faced a threat to your safety online (i.e. harassment, hacked etc.)? If the answer is No, please skip the rest of the questions.
□ Yes □ No

14) If yes, which of the following threats have you encountered? (Check ALL that apply)

- Privacy threat i.e. identity theft
- Cyber bullying
- Sexual harassment
- Others e.g. Hacking, scam (Please specify) ……

15) Have you ever told anyone that you encountered an online threat?

□ Yes □ No

16) If yes, whom did you tell or report it to? (Check ALL that apply)

- Family
- Friends
- Social media website
- University or school management
- Police

E-Survey on SurveyMoneky

Documentation of Informed Consent for Participation in Research Study

Project Title: University Youth and Online Safety: Use and Trust
Principal Investigator: Dr. Naila Hamdy

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The procedures of the research will be as follows: Litretature Review, Theoritial Framework and Methodology Chapters for this paper have been conducted. Upon reciving the results of the questionnaire, the data will be anaylzed and conclusion will be completed. The thesis, which is in partial fulfillment of the requirements for the degree of Master of Arts, will be presented to Journalism and Mass Communication Departmant, at the American University in Cairo.

*There will be certain risks or discomforts associated with this research. Few of the questionnaire's question aim to explore how youth use the Internet, for that questions about what are your practices Online are included. Some questions are related to your personal experiences on the Internet and the exposure to Online risks.

*There will be benefits to you from this research. One of the aims of this research is to raise awareness on the topic of Online Safety in Egypt. This could help in creating a safer world and a safer Online space where you can enjoy using the Internet and Social media, while being safe and secure.

*The information you provide for purposes of this research is anonymous and confidential.

*If you are interested to know the results and findings of the research or if you have any questions, please contact n_alsherif@aucegypt.edu or call +353871814855 (Please feel free to send an SMS and you will be contacted). Please use the previous contacts in the event of any research-related inuries.

*Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

By clicking **NEXT**, you agree to participate in this study.

*** 1. What is your gender?**

SurveyMonkey Audience

- Female
- Male

*** 2. What is your age?**

- Below 18
- 18 to 21
- More than 21

*** 3. The following statements describe reasons why you might use the Internet. Please describe how much you agree with each statement.**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
To participate in discussions					
Being online is like a second nature to me					
To help others					
To belong to a group					
Enjoy answering questions					
To express myself freely					
To give my input					
To get more points of view					
To tell others what to do					
I wonder what other people said					
Passes time when bored					
When I have nothing better to do					
To occupy my time					
New way to do research					
To follow the news					
To get information for free					
To look for information					
To see what is out there					
To communicate with friends, family					
Easier to e-mail or send a message than tell people					
Because people don't have to be there to receive the message					
It is entertaining					
I just like to use it					
It is enjoyable					

*** 4. Please evaluate the following statements.**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Internet is a safe place to communicate.	○	○	○	○	○
Internet is a relibale source of Information	○	○	○	○	○
Social media websites are safe communication networks	○	○	○	○	○
The news shared by my friends on social media sites are reliable	○	○	○	○	○

*** 5. Do you have your own website/blog/social media profile? (Example: Facebook, twitter)**

- ○ Yes
- ○ No

*** 6. Which of the following social networking sites you use? (Check ALL that apply)**

- ☐ Facebook
- ☐ Instagram
- ☐ Google+
- ☐ Twitter
- ☐ Other (please specify)

*** 7. Do you have a social media profile a blog or a website where you share real information about yourself (e.g. Real name, real personal picture etc.)?**

- ○ Yes
- ○ No

8. Which of the following contents is viewable by the public in your website/blog/social media account? (Check ALL that apply)

- ☐ My first or last name
- ☐ My e-mail address
- ☐ Picture(s) of me
- ☐ Pictures and names of my friends
- ☐ My telephone number
- ☐ My address
- ☐ My birth date (either some part of or all of)
- ☐ My Location
- ☐ My University name or its location

*** 9. Pleae read each statement and describe how safe you think each activity is.**

	Never Safe	Sometimes Safe	Safe
Put my real name visible to the public on a website, blog, social media profile.	○	○	○
Put my home address visible to the public on a website, blog, social media profile	○	○	○
Put the name of my University visible to the public on a website, blog, social media profile	○	○	○
Put a picture of myself and/ or my friends visible to the public on a website, blog, social media profile	○	○	○
List my favorite sports/activities visible to the public on a website, blog, social media profile	○	○	○
List where I like to hang out visible to the public on a website, blog, social media profile.	○	○	○
Meet in person a friend that I made online	○	○	○

*** 10. Please indicate how much each of the following sentences describes you.**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I like the Internet activities that could include risks	○	○	○	○	○
I often look for things to do on the Internet that society might not like	○	○	○	○	○
I consider myself a risk taker	○	○	○	○	○
The greater the risk, the more fun the Internet activity	○	○	○	○	○
I often think about things that would create fear or anxiety for me	○	○	○	○	○

*** 11. Have you ever visited a website or social media page on Internet safety or security?**

○ Yes

○ No

*** 12. Do you know someone who faced a threat to their safety online (e.g. harassment, bullying etc.)?**

○ Yes

○ No

*** 13. Have you ever faced a threat to your safety online (e.g. harassment, bullying etc.)?**

- ○ Yes
- ○ No

*** 14. Which of the following threats have you encountered? (Check ALL that apply)**

- ☐ Privacy threat i.e. identity theft
- ☐ Cyber bullying
- ☐ Sexual harassment
- ☐ Other e.g. Hacking, Scam (please specify)

*** 15. Have you ever told anyone that you encountered an online threat?**

- ○ Yes
- ○ No

*** 16. Whom did you tell or report it to? (Check ALL that apply)**

- ☐ Family
- ☐ Friends
- ☐ Social media website
- ☐ University or school management
- ☐ Police

Tables

Table 15 – Exploratory factor analysis for Motives construct

	Component				
	1	2	3	4	5
To participate in discussions	.174	**.603**	.060	.087	.163
Being online is like a second nature to me	-.169	.260	.430	.348	.214
To help others	.195	**.636**	.013	-.008	-.094
To belong to a group	-.099	**.667**	.190	.010	.116
Enjoy answering questions	-.027	**.690**	-.021	.058	-.085
To express myself freely	.024	**.618**	.128	.102	.241
To give my input	.159	**.673**	-.042	.163	.197
To get more points of view	**.540**	.264	.121	.184	-.215
To tell others what to do	-.039	**.607**	.064	-.030	-.188
I wonder what other people said	.335	.223	.498	.114	-.109
Passes time when bored	.205	.033	**.672**	.277	.162
When I have nothing better to do	.245	.005	**.767**	.006	.171
To occupy my time	.146	.035	**.625**	.360	-.003
New way to do research	**.746**	.039	.101	.226	.077
To follow the news	**.550**	.235	.405	-.192	.077
To get information for free	**.576**	-.008	.072	.351	.215
To look for information	**.734**	-.032	.168	.185	.194
To see what is out there	**.570**	.037	.220	.106	.374
To communicate with friends, family	.494	.025	.178	.249	.318
Easier to e-mail or send a message than tell people	.143	.065	.095	.185	**.759**
Because people don't have to be there to receive the message	.209	.076	.100	.062	**.750**
It is entertaining	.350	.052	.128	**.584**	.097
I just like to use it	.186	.147	.278	**.648**	.106
It is enjoyable	.307	.084	.155	**.721**	.116

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Table 16 – Confirmatory factor analysis for Motives construct

	Component				
	1	2	3	4	5
To participate in discussions	**.605**	.175	.087	.053	.158
To help others	**.634**	.214	-.008	.007	-.114
To belong to a group	**.676**	-.086	.005	.152	.116
Enjoy answering questions	**.690**	.001	.039	-.042	-.088
To express myself freely	**.621**	.029	.102	.095	.267
To give my input	**.669**	.146	.172	-.055	.210
To get more points of view	.255	**.568**	.208	.088	-.188
To tell others what to do	**.617**	-.083	.010	.060	-.189
Passes time when bored	.062	.160	.328	**.692**	.165
When I have nothing better to do	.034	.233	.046	**.791**	.146
To occupy my time	.068	.099	.405	**.654**	-.018
New way to do research	.028	**.742**	.264	.083	.085
To follow the news	.236	**.584**	-.154	.413	.079
To get information for free	-.024	**.578**	.383	.016	.249
To look for information	-.036	**.718**	.231	.192	.196
To see what is out there	.032	**.556**	.149	.217	.391
Easier to e-mail or send a message than tell people	.065	.106	.193	.104	**.773**
Because people don't have to be there to receive the message	.076	.161	.091	.115	**.769**
It is entertaining	.056	.279	**.632**	.118	.131
I just like to use it	.160	.156	**.648**	.253	.090
It is enjoyable	.092	.237	**.761**	.153	.140

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table 17 – Factor analysis for Safety construct

	Component
	1
Internet is a safe place to communicate.	**.775**
Internet is a reliable source of Information	**.591**
Social media websites are safe communication networks	**.826**
The news shared by my friends on social media sites are reliable	**.781**

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 18 – Factor analysis for Trust construct

	Component	
	1	2
Put my real name visible to the public on a website, blog, social media profile.	.062	**.697**
Put my home address visible to the public on a website, blog, social media profile	**.765**	-.123
Put the name of my University visible to the public on a website, blog, social media profile	.131	**.737**
Put a picture of myself and/ or my friends visible to the public on a website, blog, social media profile	**.520**	.372
List my favorite sports/activities visible to the public on a website, blog, social media profile	-.023	**.792**
List where I like to hang out visible to the public on a website, blog, social media profile.	**.720**	.179
Meet in person a friend that I made online	**.756**	.027

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Table 19 – Factor analysis for Risk construct

	Component
	1
I like the Internet activities that could include risks	**.797**
I often look for things to do on the Internet that society might not like	**.777**
I consider myself a risk taker	**.694**
The greater the risk, the more fun the Internet activity	**.818**
I often think about things that would create fear or anxiety for me	**.752**

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

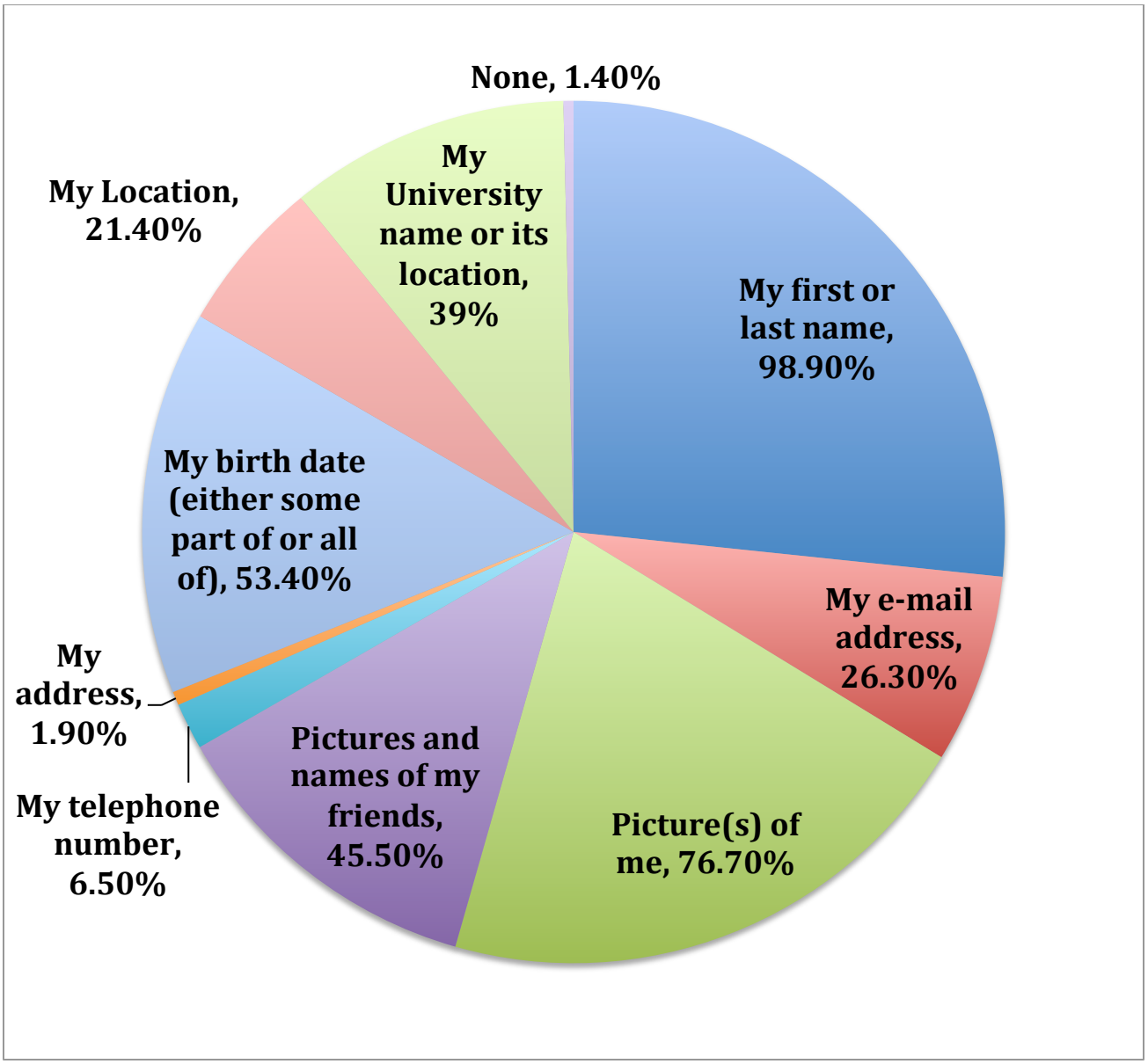

Figure ( ): Pie chart representing participants' public viewable contents in the participant's website/blog/social media

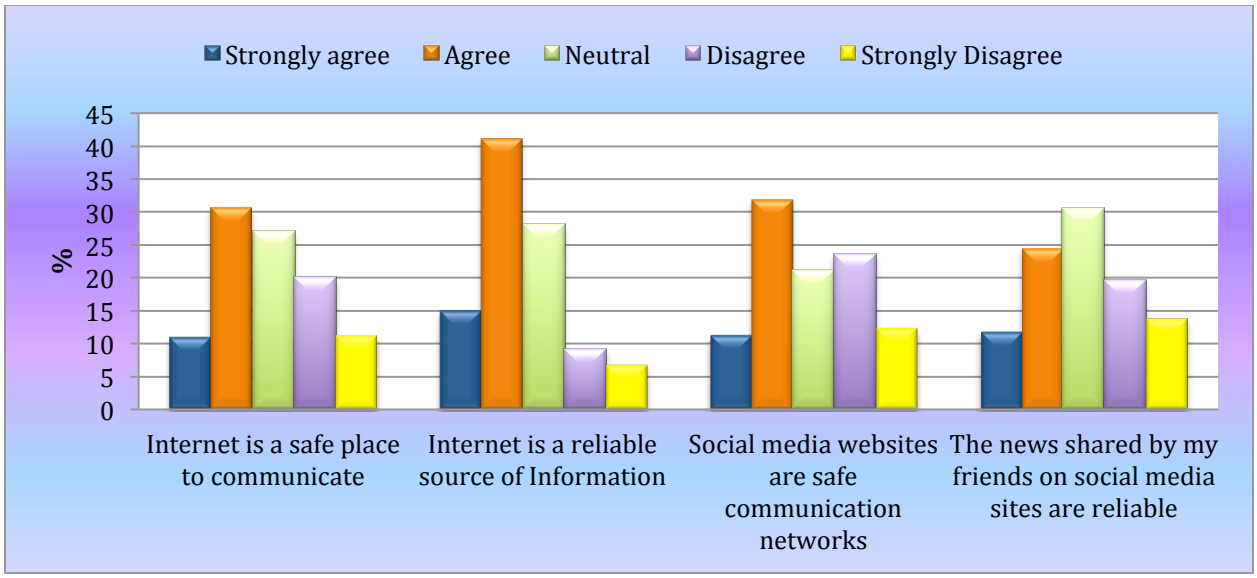

Figure ( ): Bar chart representing participants' response to Question 4 (Evaluation of safety)

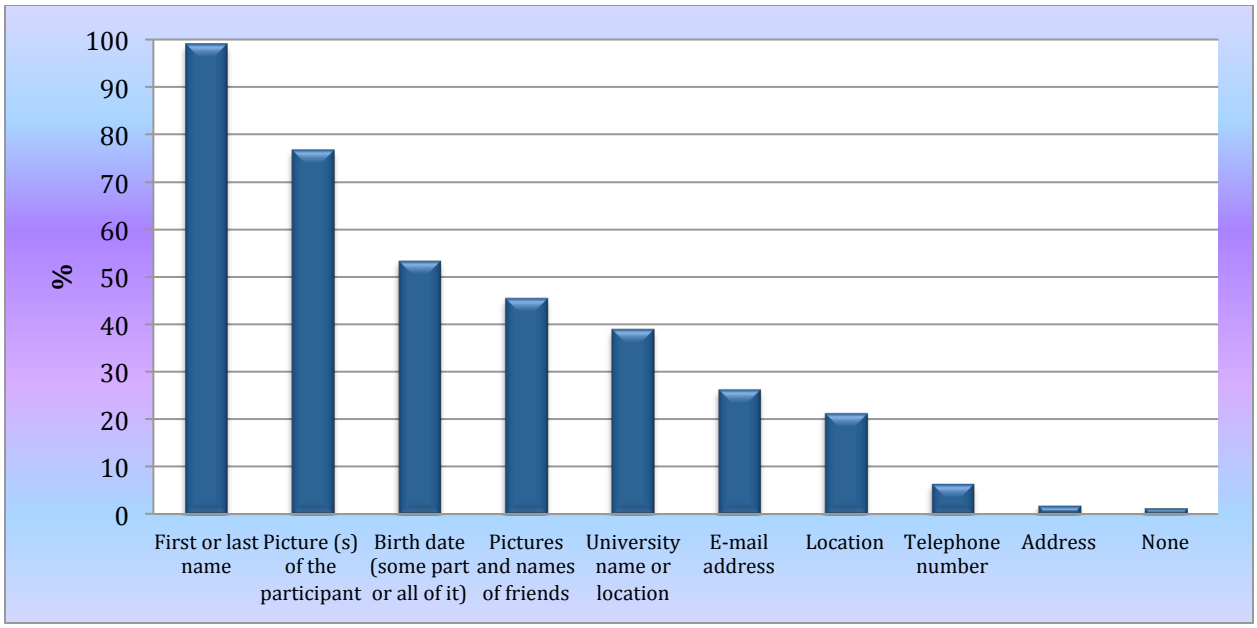

Figure ( ): Bar chart representing participants' public viewable contents in the participant's website/blog/social media

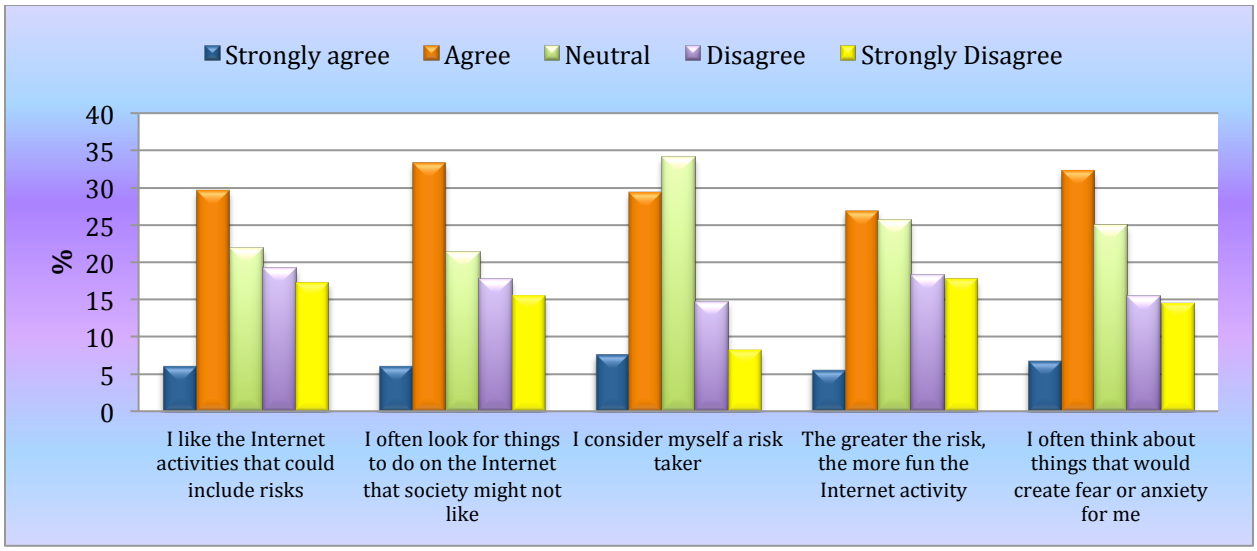

Figure ( ): Bar chart representing participants' participants' response to Question 10 (Evaluation of risk)